

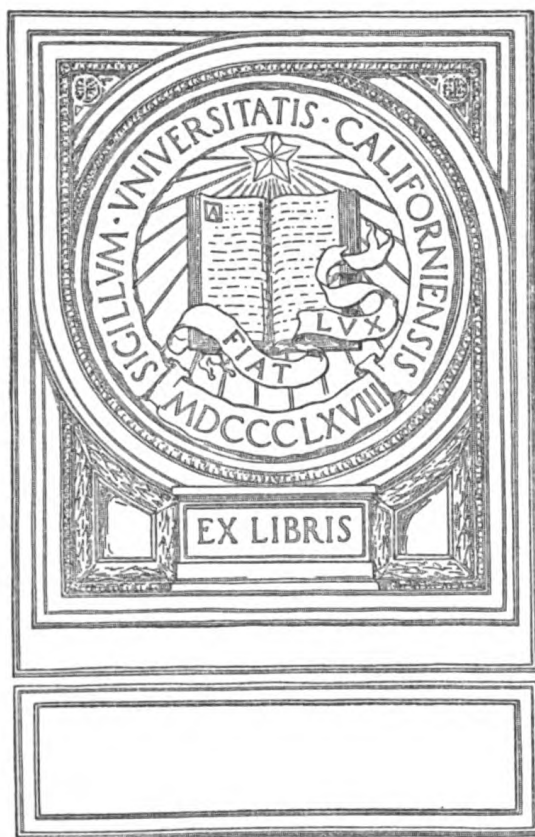
HE'S IN THE ARTILLERY NOW

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BY CHARD POWERS SMITH



HE'S IN THE ARTILLERY NOW



The biggest noise on earth—a 16-inch seacoast rifle.

HE'S IN THE ARTILLERY NOW

By

CHARD POWERS SMITH

EX-CAPTAIN, FIELD ARTILLERY, WORLD WAR I

Library of
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ABSTRACTS

ACKNOWLEDGMENT

AT THE source of the long series of courtesies which made it possible for me to gather the material for this book is the prompt cooperativeness of the Public Relations Bureau of the War Department in authorizing my visits to the training camps. Special thanks are also due to the Signal Corps for lending many of the pictures that appear in the book.

My longest visit was at Fort Bragg, North Carolina. The knowledge I gained at that great Field Artillery Replacement Training Center under General Cubbison's command gave me my fundamental impression of the clock-like precision and thoroughness of the mass training of the new Army. My thanks for my initial reception go to Captain Parks, the Post Public Relations Officer. The specific arrangements for my tour of observation, arrangements going beyond the necessities into the realm of hospitality, were made by the Training Center Public Relations Office, under the direction of Captain Edward J. Flynn, the agreeable details of entertainment being carried out by Sergeants Robinson, Rosenbaum and Bishop, and Corporal Fortress who supplied many of the best pictures.

For observation I was directed to the Fifth Training Regiment, and a list of those who extended me unfailing courtesy there would include everyone in the Regimental Staff, from Colonel Smith, then commanding the regiment, down through all of the commissioned and non-commissioned personnel. Space limits me to expression of gratitude to the five officers without whose cooperation this book could hardly have been written:

Colonel Earl Major, the regimental executive, not only extended to me all the facilities of the regiment, but personally spent hours enlightening me upon modern artillery methods.

Captain Joseph M. Potts and Lieutenant J. W. Seffens supplied me with training schedules and careful explanations of many details.

I spent several days with each of the respective batteries of Major (then Captain) Russell L. Norgordt and Captain John J. Pitts, observing every detail of training and the life of the men. In spite of their heavy responsibilities, these battery commanders and their officers were always ready to answer my questions at length, and to direct me to any exercise I wanted to see on the part of their platoons scattered over the Training Area. Sergeant Voza, then Corporal and Battery Clerk of Major Norgordt's battery, gave me access to a story he had written about training and permitted me to use material from it. Though the "Battery D" of my story is a composite and no member of it is patterned on any actual person, yet the general impression out of which I created it was drawn more from Major Norgordt's and Captain Pitts's batteries than from any other source.

After Fort Bragg my most fruitful visit was to Fort Monroe, Virginia. Here again, the Public Relations Office, under Lieutenant Colonna, managed my reception efficiently, while my entertainment by Sergeant Stoller made me feel more like a guest than a semi-official visitor. Sergeant Stoller was specially helpful in finding pictures that suited my needs. As in the case of Colonel Major at Fort Bragg, here it was Major Alfred C. Andrews, Assistant S-2 at Chesapeake Bay Sector Headquarters, who proved to be my indispensable mentor. Not only did he arrange my tour around the coast defenses, but he personally opened my eyes to some of the intricacies of the far-flung unit of coordinated power that is a coast artillery sector.

To all these, and to others whom lack of space prevents me from mentioning, I want to express my gratitude for the material that has gone into this book.

C. P. S.

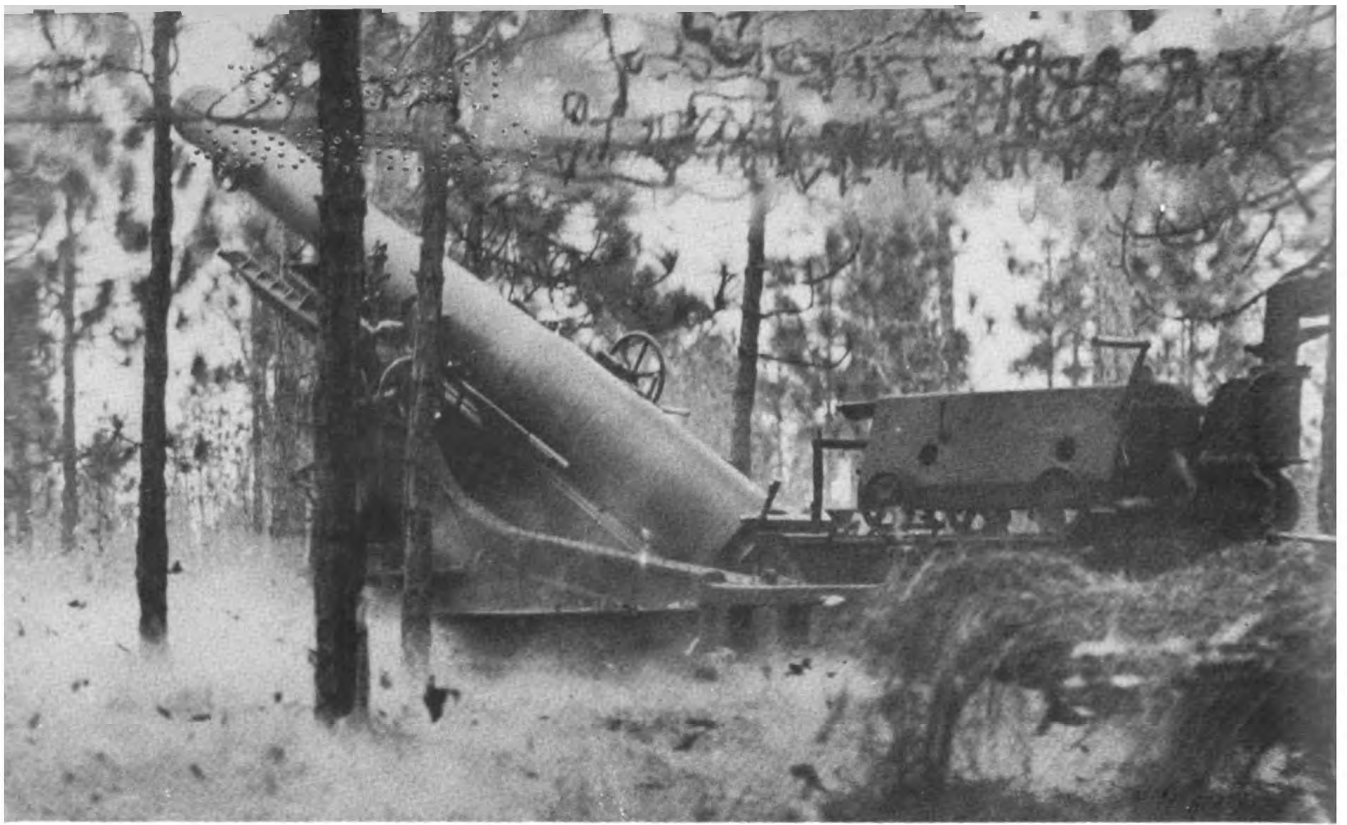
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WHY THE ARTILLERY?

IN PARAGRAPH 11 of his Classification Card, "Duty desired now," Joe Boom wrote "Artillery." But if you had asked him why he chose that instead of some other branch, he probably would have been slow with his answer. Joe had a good job at the meat counter in the First National, and there was nothing about that to make him prefer to serve with the big guns. Nor did he have any hobby that shunted him in the direction of high explosives. If you had asked him why he made that choice, he probably would have said something non-committal like, "I guess I've always had a kind of hankering to know something about artillery." Or, "My uncle was in the artillery in the last war, and between him and the victrola I've heard that old caisson song so much I figured I might as well climb on board." Joe might have given these or some other half-answers. But none of them would have been the real answer.

The fact was simply that Joe was a healthy young male, and every healthy male likes to roar and make a noise. He begins life pounding a tin drum. In boyhood he hollers with the gang and races through houses knocking over furniture. On the Fourth he shoots off the biggest firecrackers he can get. In adolescence he listens to thunder and lightning and identifies himself with their rumble and power. All his life he is excited by a military band, or by dynamite or a cannon shot. This does not mean that he is destructive or even belligerent. He just wants to convince the world that he is a tremendously powerful fellow. If the world calls his bluff, he will fight to show it wasn't a bluff. But he likes it better if he can get away



A real earth-shaker—240 mm. howitzer in action.

with it without a scrap. He merely wants the world to listen and admire.

And here at last is his chance to identify himself with the biggest and most powerful noise that mankind can make. He himself may be able to fire a detonation so great that it will shock his nerves and deafen his ears. It will even scare him at the beginning, so that it will take a little nerve to step up and do it, to pull the lanyard that will make several tons of gun jump in the air, will bend back trees and sweep up clouds of dust with the concussion. That is the big word he wants to utter, and that will be enough for him. He isn't greatly interested in the meaning of that big word, in the whistling thing of steel the gun whips off to explode out of hearing miles away. He isn't concerned about the destruction that shell may work somewhere far over the hill. Outside of any special interest he may develop in killing Germans or Japs, he will enjoy practice firing as much

as real action. The big noise is the thing—"I'm Joe Boom—look out, here I come!"

Whether he knows it or not, this is the real reason Joe signed up for the artillery. Of course, the other reasons he gives may have helped him make up his mind, the fact that he had a relative in the artillery, or that he likes the old Field Artillery song:

Over hill, over dale,
As we hit the dusty trail .
And those caissons go rolling along.
Up and down, in and out,
Counter-march and right-about,
As those caissons go rolling along.

For it's hi-hi-he,
The Field Artillery,
Shout out your number loud and strong—
One-two-three-four—
Where'er you go
You will always know
That those caissons are rolling along—
Keep 'em rolling—
As those caissons go rolling along.

Through the storm, through the night—
Action left and action right—
Those caissons go rolling along.
Limber front, limber rear,
Prepare to mount, you cannoneer,
As those caissons go rolling along.

For it's hi-hi-he,
Etc.

Joe is probably also right when he says he's always had a hankering to know something about artillery. No doubt he has shared the popu-



This one is an car-splitter—105 mm. gun-howitzer firing from concealed position.

lar notion that there is something important and highbrow about the laying and firing of the big guns, that an artilleryman is somebody with a special knowledge of angles and maps and wind and weather that sets him a little above other soldiers. Joe knows how to handle a rifle and a shotgun, and he'd like to learn how it is that you can shoot a big gun at something you can't see and hit it. He'll feel pretty important when he gets on the inside of that secret.

Next to the infantry, the artillery is the most numerous branch of the Army ground forces. It might be described as the branch using guns of large bore or diameter and great range. The bore distinguishes artillery guns from small arms, the rifle, pistol and machine-gun. Their great range distinguishes them from trench mortars which, along with hand and rifle grenades, are infantry weapons. The other common characteristics of artillery pieces are shared with other guns.

They fire explosive projectiles, but trench mortars do this also, and small arms may. They can be aimed and fired only from carriages or emplacements, but this is true also of machine-guns. It is the big bore and great range that distinguish the artillery. At present the smallest gun that we can fairly call artillery has a bore of 37 millimeters, about an inch and a half; and the shortest maximum range of an artillery piece is that of the pack howitzer, 9,400 yards or about four miles and a half.

The main subdivisions of the artillery are the Coast Artillery and the Field Artillery, and they have different functions. The function of the Coast Artillery is chiefly defensive. Traditionally it is to defend the seacoasts against naval attack. To this is now added the duty of defending the whole country's aircoasts against aerial attack, for the anti-aircraft forces are now under the Coast Artillery. Typically, though not always, coast artillery guns are immobile, being mounted on fixed emplacements. Field artillery guns, on the other hand, are mobile, being readily drawn from place to place. The function of the Field Artillery is to support the infantry, both in attack and defense.

Because the Field Artillery is much more numerous than the Coast Artillery, the chances are that Joe will be assigned to the "Field." And because in the Field the commonest gun is the 105 millimeter (about $4\frac{1}{5}$ inches) gun-howitzer, the probability is that he will be assigned to that weapon. Besides being the finest "light" field artillery piece in the world, the 105 is also used by the Coast as part of its mobile defenses. This and some other guns used by the Field are also used by the Coast, and the basic training in both branches is virtually the same. If Joe gets his basic training with the 105's, he will be prepared, with a little advance training, to serve with any of the guns, light or heavy.

He will probably be sent to one of the three field artillery replacement training centers of which the biggest covers 450 square miles and is the largest artillery camp in the world. Besides the training



Blaze away! A 90 mm. anti-aircraft gun in night action.

center, it contains a separate area for special training in motors, another for special types of artillery that are still drawn by horses or mules, an area for a complete organized division, three big hospitals, an air field, several areas for different kinds of special troops, including airborne, a central Main Post or Camp Headquarters with Military Police, Quartermaster, Ordnance, Medical and other troops serving the whole post, and vast outlying regions divided into artillery and small arms ranges and areas for manoeuvres and bivouacs. The population of the replacement training center alone varies between fifteen and twenty thousand and all of it except the permanent staff or "cadre" is renewed every thirteen weeks. The population of the entire post varies between forty and sixty thousand.

Wherever Joe finally lands, whether with the Coast or the Field, the "heavies" or the "lights," the impulses that made him write "Artillery" in Paragraph 11 of his classification card are not likely to be disappointed. He will shout the caisson and the other artillery songs until he is sick of them. He will learn as much of the mysteries of firing as he can absorb, and even though he may become a driver instead of a cannoneer he will become convinced that the artillery is superior to every branch of the service. Most important, he will many times participate in that roar, that complete and final noise that subconsciously he always wanted to utter. Whether it is the slow bellow of the Coast Artillery's 16-inch rifle or the sky-shaking racket of a battery of 105's in action, he will have a share in the only man-made sound that rivals nature's thunder and earthquakes and volcanoes. For once he will speak with all the power that he secretly believes is his, and the world perforce will listen.

Furthermore, that secret power of his will in fact come close to complete realization. He will be developed in character, health and muscle to the limit of his capacity. He will no longer be Joe Boom the weary-footed meat clerk at the First National. He will be Joe Boom, the artilleryman. He will be conditioned by the zest and the



A 3-inch A.A. gun can fire a distance of 7,000 feet vertically.

fatigue, the agonies and the triumphs of the toughest course of sprouts ever imposed on millions of men, the Basic Training of the new Army of the United States.

II

IN TRANSIT

JOE'S FIRST VIEW of the Army was of three or four hundred other naked youths of every race and color, standing around the big bare room where he was called up for his physical in October. Narrow-shouldered, pot-bellied, hollow-chested, spindle-shanked or huskily built, each of them periodically arched his chest, straightened his back, flexed his biceps, and held the attitude till something caught his attention and the surge of self-consciousness passed. Joe was less self-conscious than most because he had a better build than most, though he didn't have a swelled head about it. He was medium tall, slender and rangy of limb, broad in the shoulders and slim in the waist and hips. As he stood waiting he bore all his weight on his right foot with his right shoulder drooping, the lounging stance of the one-time halfback on the high school football team and forward on the basketball team—though he had left school to go to work at the end of his junior year.

"First trick, Buddy?" asked a swarthy man in his thirties who was next ahead of Joe in the Wassermann test line. Joe gathered that "first trick" meant first service in the Army. He gave the man his quick responsive smile and nodded.

"Third for me," said the other. "Figgered they'd have to climb a tree to get me next time, but I came like a lamb when they called me. Army always gets you back."

Joe managed to look at the other's physical card on a string around his neck. "Jack Boulter" was the name. Mr. Boulter winked at a soldier who was watching their line, having two chevrons on his arm

and the caduceus of the Medical Corps pinned to his collar. "Tough goldbrickin', eh, corporal?" said Boulter. The corporal smiled professionally.

The line edged forward, and now there were only four or five selectees between Boulter and the Wassermann needle. "Jud' priest," said Boulter in a loud voice, "I've give enough blood in the interest of science to set up half a dozen first class privates. Queer how it gets some soldiers to be stuck like a hog. Never bothered me none. . . ."

As soon as the man in front had got through the test, Boulter found his voice again. "Okay, Sister," he said, extending his arm to the sergeant who was doing the work, "come and get it by the numbers." While his blood filled the syringe he never stopped talking. "Seen an orderly once who lost his grip after needlin' most a battalion and stuck a guy in the ribs 'stead of the arm. Happened to be his right side, so he missed the heart." Joe Boom was feeling squeamish now, but he set his teeth and nobody noticed it. He winced when the blade cut into his vein, and was ashamed to find it didn't hurt him at all.

One early morning two weeks later the "Shanghai Express" of twenty-odd sleepers took the branch from the main line for the Field Artillery Replacement Training Center. On board was another load of a thousand youths, still in civilian clothes, who were about to graduate from the status of selectees into that of trainees. During the pause for switching, the crap game that had been going on in Joe's seat since breakfast was suspended long enough for the prospective artillerymen to peer out the windows. "Some dump!" a New York boy named Jeff Browne with a tiny mustache voiced the general opinion. Whereupon the serious business of the day was resumed. Joe was a little ahead, and he had been staking his berthmate of twenty-four hours' acquaintance, a solemn, silent, stockily

built boy named Al Ainsworth who was a truck driver in civilian life.

Presently the big man with three chevrons, whom Boulter frequently addressed familiarly as "Sergeant" or "Sarge," yelled through the car: "All right, men, get your duffle together. We'll be pulling in in about ten minutes."

The game folded, and Jeff Browne put his dice in his pocket. "Always look on the bright side and she shine for you," said one Louis Brilliati, fondly counting the stack of bills he had amassed. The players scattered, leaving Joe and Al Ainsworth and their seat-mate of the upper berth, one Sam Collenski, gazing out of the window.

Joe now took his first long look at the flat, gray, southern landscape that seemed too wide for its sparse vegetation. Just scrub oak and pine, with scattered clumps of tall, long-leaved pines, sometimes near the train but usually far off on the misty horizon. On the other side of the train there was a super-highway with moderate traffic, including frequent buses, but on Joe's side there was no human sign but an occasional cabin with its dirty mule tied to a scrub-oak.

Sam Collenski turned around to peer ahead. "Ought to sight the prison walls any minute now," he mumbled.

Everybody fell silent. On both sides of the train the horizon ahead had smoothed into a straight line of dull red. As they rattled nearer, the line widened and lay far up a gradual slope. Beneath it the windows of two-story buildings became visible, hundreds of identical buildings in close rows all painted a kind of warm white that had no glare. Above those miles of dull red roofs a thin black smoke cloud lay motionless against the gray sky. Out of the diminishing distance a forest of slim black chimneys grew over the roofs, and from them hundreds of black plumes slanted all the same way into the overhanging cloud.

"Is that there where we be goin'?" asked a boy named Pete Alum who earlier had admitted that he had never been on a sleeper before.

"Is mama's little son-of-a-gun ready for Sunday School?" said Boulter.

The rest of the car continued to gaze in silence. It was their new home, their new city.

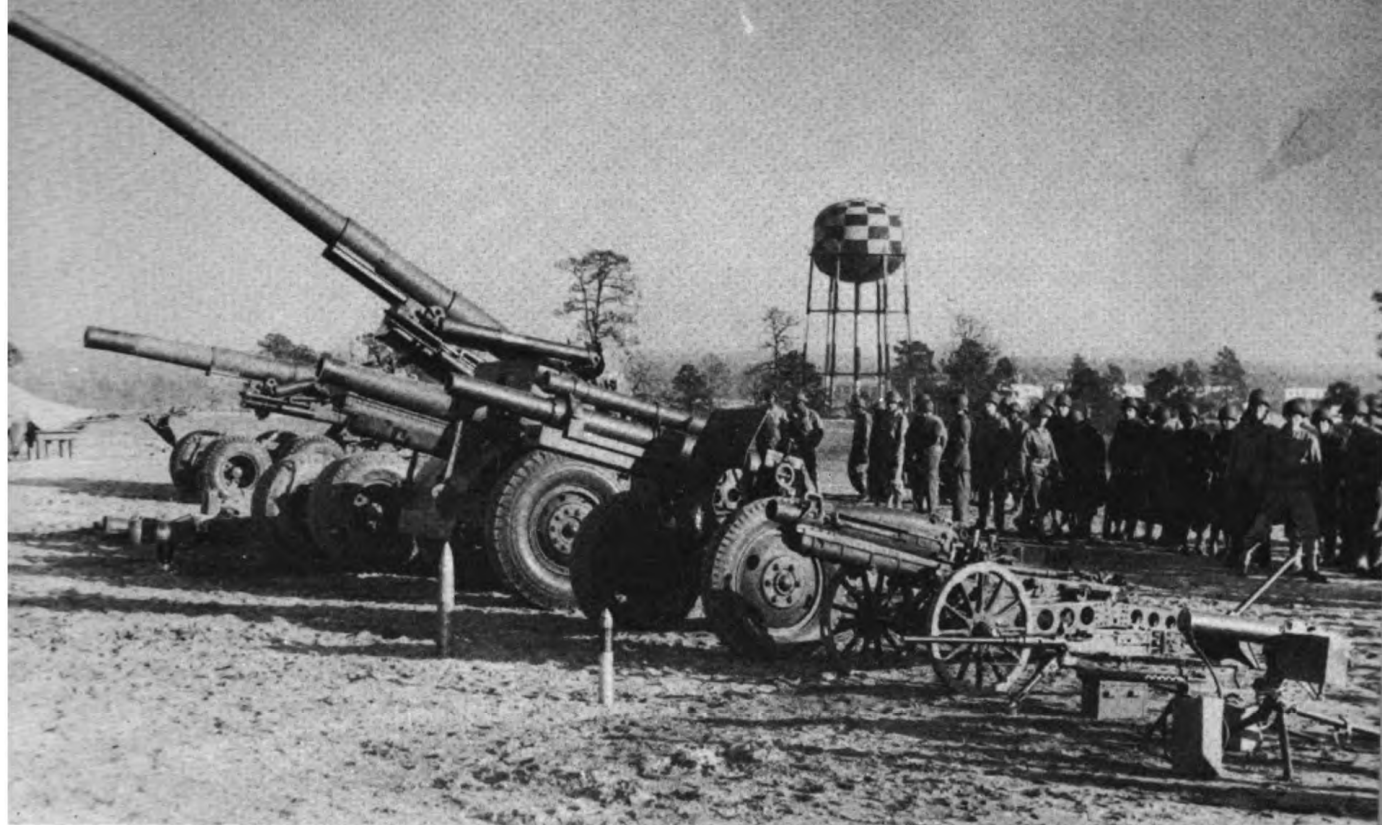
As they filed down from the cars, a band somewhere was booming out the Field Artillery Song, helped by a couple of amplifiers down the length of the train.

The non-commissioned officers in charge of each of the sleepers got their civilian overcoated men in two lines outside the cars, told them to put down their duffle bags and called the rolls. In front of them the view of the Training Center was cut off by a line of buff-white, red-roofed warehouses, each with three or four olive drab trucks backed up to the loading doors. To the left, beyond the warehouses, Joe could see hundreds of trucks parked in seemingly endless lines. An olive drab "jeep" or command car—something between an armored car and a high-slung tourist model, clanked by in front of the line and stopped at the express car behind the locomotive. A staff sergeant, carrying a bundle containing some thousand classification cards, climbed up into the jeep that turned around, clanked by the line again, turned right and vanished in the direction of Field Artillery Replacement Training Center Headquarters.

The band continued to blare. There were sporadic attempts to sing, but generally the long slouching ranks were glum. A natty youth with a bar on his shoulder—Joe knew that meant a lieutenant—hurried down the line and stopped in front of them. The sergeant snapped to attention, saluted and reported, "All present, sir." The officer returned the salute and hurried on.

"How 'bout callin' these beautiful babies to attention, Sarge?" shouted Boulter.

"I left that to you," said the sergeant. "All right, men, face to the left—the left—that way. Close up to the next platoon. All right, for-



Four field artillery beauties. Rear to front: Two 155 mm. "longs" (rifles); 155 mm. "short" (howitzer); 105 mm. gun-howitzer; 75 mm. howitzer (mountain artillery); two machine guns in foreground.

"Little Poison" (37 mm.) ready for enemy tank.



ward march. Keep closed up now, forty inches from the man in front of you. All right—platoon, halt.”

They had closed up to the delegation from the next car that had already closed up on the delegations ahead, and those behind followed them.

During this manoeuvre the band had ceased its effort. There was a rhythmed scuffling from behind and the band marched silently by at exemplary attention, the band master leading the fast cadence with the sideways, elbow swing of his staff that is the envy of all non-bandmasters. Presently the Field Artillery Song boomed out again far ahead.

“All right, men,” said the sergeant, “throw your duffle bags over your shoulders, follow the man in front of you and keep closed up.”

Swinging round a corner to the right, the long column of twos accordioned out to a half mile and more, sections of it alternately trotting to catch up lost space and standing till the column in front of them unjammed.

“Looks like they was mighty glad to see us, sending the band to meet us,” said Louis Brilliati.

“Brother,” said Boulter, “you’re in the army now.” As if to emphasize his statement, the band changed its tune to “You’re in the Army Now.” “One—two—three—four,” muttered Boulter. “Come on, you cake-eaters, suck up your guts. One—two—three—four.”

They swung left into a wide street, neatly curbed and macadamized like all the streets of the Training Center. Before them to the right the camp spread up over its low hill. The two-story barracks in endless rows were uniformly painted soft, buffy white under their dull red roofs, with a separate line of dull red eaves hanging out over the first story, giving them a sort of pagoda-like appearance, as of one barracks resting on the roof of another. All the buildings of the Center were painted in the same color scheme, and they varied in size and shape from the barracks only so much as was necessary for

their special functions. Out of most of them the slender, black metal chimneys rose to a uniform height of about twenty feet over the roofs, and out of all the chimneys identical black plumes of soft coal smoke bent at identical angles into the thin overhanging pall. There were only four colors in the Training Center; the buff-white of the clapboards; the soft brick red of the roofs; the olive drab ("O.D.") of vehicles, guns, implements and uniforms; the dark gray of the smoke-cloud that blended into the lighter gray sky through which, during the ensuing months, Joe would rarely see the sun. The huge camp was a paradoxical combination of coal smoke and immaculate cleanliness, from a distance the murky appearance of a factory city, nearby the neatness of a brand new suburban development, so spotless that a cigarette dropped illicitly in street or yard stood out like a filthy crime. "Mash your butts in your fingers before you drop them," said the sergeant of Joe's group to somebody who had flipped his cigarette into the street.

There wasn't much traffic on Second Street where the column was shuffling its way, the men stretching their legs to the unaccustomed speed. Only an occasional truck whizzed by, or a jeep, or a tiny bouncing "peep" known as "son-of-a-jeep." The only soldiers visible were sentries, walking their slow, precise posts beside the vast motor park on the left. As the column came out from behind the last warehouse, everybody looked with wonder up the hill to the first of the gun parks along the edge of the camp. Eight crouching dinosaurs, in perfect alignment and wearing their tarpaulins like capes, stuck their thick noses twelve feet up at the sky.

"What's them?" asked Pete Alum suspiciously.

"240's," said the sergeant. "They're the big babics of the Field Artillery. Throw a three-hundred-pound shell about fourteen mile."

They crossed M Street and saw the next gun park. Squads were whipping off and folding the tarpaulins from four twenty-foot guns whose tapering tubes sloped upward at a uniform graceful angle like

gigantic black swans, each resting on eight fat pneumatic tires like huge gray eggs.

"There, soldiers," said Jack Boulter, "there's a peashooter for a man. That's the old 155 rifle. Hit a mosquito in the eye at ten mile."

They moved on by the next park where eight 155 howitzers, smaller than the rifles, squatted under their tarpaulins like gigantic frogs. Jack Boulter began to regale those within earshot with the virtues of the three types of "heavies" they had passed.

"Do you know the new light field piece?" the sergeant interrupted him, "the 105 gun-howitzer?"

"Since my day," said Boulter.

"Got everything the 75 has," said the sergeant, "and plenty more. Twenty rounds a minute. That's the gun to mix it up. That's the proper field artillery. No worry about shooting over the hill in front of you. Seven zones of fire. Nothing it can't do."

"This 105 going to be our baby?" asked Jeff Browne.

"They tell me you're slated for the 5th Regiment," said the sergeant. "That's mostly 105's, with a few 155 howitzers. Lucky if you get the 'lights.' I'm aimin' to get back on 'em, if ever I can get out of this duty."

The sight of the big guns and the learned discussion between the two old soldiers had given most of the new men a kick, and they looked ahead with livened interest. The band struck up "The Yanks Are Coming," and they wobbled into step again. They crossed L Street and were entering the camp proper, the city of barracks. To the right up to the horizon stretched some two dozen ranks of six buildings each, each rank housing a battery with the battery streets separating them. Now they were marching past the six long buildings of the nearest battery that sided on Second Street.

On the other side of the street were the barracks of Training Center Headquarters Battery. Next to these was a little chapel with its low pyramidal spire. Half a mile ahead Joe could see another

identical spire, and over the horizon up to the right, he could see the tips of two others. It gave him a notion of the four-square lay-out of this, the central portion of the Training Center. The glassed-in bulletin board of the chapel they were passing bore the announcement, "Jewish service Friday evening at 8."

"Looks like the Jews had captured the Artillery," called Jeff Browne, himself a Jew.

"Jews, Catholics and Protestants take turns with the chapels," said the sergeant. "There are six of them, one for each regiment, with a separate one for the colored battalion."

Next to the chapel was a wide low building with a square front porch. "Service Club?" asked Jack Boulter.

"Only one in the area," said the sergeant. "Cafeteria gets jammed. Dances every Friday. Battalions run them by roster. Good skirts from nearby towns. Y.M.C.A. collects them. Next door there is the Guest House, where you can put up your sweetie. Beyond is the dispensary for Headquarters. Each regiment has a separate one. Next is the Post Office and Telegraph Office. Over yonder beyond Headquarters Square is the Dental Clinic. Then the Fire House—two others in the area; then Center Theatre—likewise two others—all get the hottest films. There's a big open air theatre, too, for summer doings. Beyond is the Headquarters Post Exchange—'P.X.' to you—each regiment has its own. Beyond that on the hill is the Fourth Regiment chapel. There are three official beer joints in the area, one big laundry and dry cleaning joint, five tennis courts and a swimming pool for the officers that they don't use. Each battalion has its headquarters, each regiment a headquarters, a jug and a barber shop. There's a training aid center to draw pretty pictures for the dumb, and here and there you'll come on a warehouse, a repair shop, a gun or a soldier."

They had crossed K Street and were coming out into Headquarters Square, with the tall flagpole in the small plot of real grass in the

middle. On the left were the Headquarters buildings, which were like the barracks except that the central one had double porches and outside stairways. In front of it was the red flag with two stars, meaning that the Commanding General of the Training Center was in his office. His O.D. sedan, with its two-star, major general's license, stood at the curb, a couple of jeeps behind it. Neither the General nor anybody else came out to watch them pass.

They crossed J Street and turned right up I that was only a few rods farther on. Far ahead the band returned to the Field Artillery song. Everybody had lagged, and had to run round the corner in front of Headquarters to catch up. The column was panting audibly.

"Pretty good clip, Sarge," puffed Boulter.

"Just the old 120 a minute," said the sergeant, "if you march it. They start you easy."

Until now Joe had been surprised at the seeming emptiness of the camp. Just the sentries walking their posts, the one battery drilling on the 155 rifles, the occasional K.P. or Cook pausing to look at them from around a battery mess shack, a few jeeps and trucks buzzing by, a few officers walking hurriedly on the sidewalks. But from now on he got a new impression. I Street was the central avenue of the Training Center, with miscellaneous buildings—mostly officers' quarters and messes—running along it, J and H Streets close behind these, for service, and beyond on each side the respective five-acre drill fields of the Second, Third, Fourth and Fifth Regiments. It was not yet nine o'clock, and most of the battalions of these regiments—three or four to each—were still having their hour of foot drill or calisthenics.

From both sides of the street came a medley of powerful pulses, composed of the rhythmized shouts of thousands of men accompanying their cadenced movements. "One—two—three—four, One—two—three—four," a battalion of a thousand men shouted in perfect unison. "One—two—three—four, One—two—three—four," came with equal

power from the other side of the street. Between the buildings Joe could see some of the exercises. He watched a column marching with rifles with a snap in their step which affected his nerves so that his own step quickened. Then he could see long lines and ranks doing push-ups with a uniform speed he knew he could not equal—squat—out—down—up—squat—stand—squat—out—down—up—squat—stand. Another big group doing rifle calisthenics, shouting their own commands—“Battalion—attention—starting position—one—two—in cadence—exercise—up—right—up—down—up—right—up—down—up—right—up—down”—all the rifles going up over their heads horizontal, out to the right, up again and down—“Battalion—halt—order—arms—one—two—parade—rest.”

“What’s the matter, sergeant,” asked Jack Boulter, “ain’t they got officers with lungs enough to holler commands?”

“Wait and see, stranger,” said the sergeant. “I’m tellin’ you, it’s a new Army.” He took out his watch, and kept his eye on it. “If my time ain’t wrong, in thirty seconds drill period is over and you’ll see something. Maybe ten thousand men out there, and in two minutes the drill fields will be clean as a baby’s back. Should be”—he paused—“now.” He looked up.

Already the shouts of officers and non-commissioned officers were booming on all sides. Everywhere, by batteries and battalions, the men were double-timing in close formation, and the fast beat of thousands of feet made a cadence even more powerful than the shouts had been before. In a few days Joe was to learn that, except for long road marches, there was only one gait for going anywhere at the Training Center—double time. Already he felt the lift, the speed of the atmosphere.

The commands of officers and the pounding of battalions of feet died away. Twenty acres where ten thousand men had been were as bare as the sergeant had predicted. The camp was as silent and de-



Buckeye Beauty in the Woods—a 155 mm. rifle.

serted as before. "A minute and forty seconds," said the sergeant, stuffing his watch in his pocket.

For a moment there was only the slovenly shuffle of a thousand civilians, and a wave of something like shame swept down the column. Then the band struck up "You're in the Army Now," and everybody who could count fell into step. Joe felt his muscles trying to imitate the snap of the soldiers on drill.

"Enjoy the music while you can," said the sergeant. "It's the last time you'll hear it—for your benefit—except once. Two weeks from Saturday you'll put on a parade for the General."

Up ahead, the column was turning left down 5th Street beside Fifth Regiment Headquarters. The sound of the band grew faint behind the buildings. As if in reaction against the elation caused by the drilling, a heavy rebellious wave swept down the column. Under its duffle bags the column wobbled out of step back to its weary civilian shuffle. Joe's part of it crawled up to Fifth Regiment Headquarters and turned the corner. Unknown to Joe, his future Colonel was standing at his office window, watching the fresh consignment, most of whose members would be his charges.

They doubled back around Fifth Regiment Headquarters and slouched down H Street till the column occupied the long block between Fifth and Fourth. As if punctured, the band gave out in the middle of the phrase, "You're not behind the—" But few noticed the change. From the countermarch they had just made, the men recognized that they were near their destination. With curiosity, variously colored by eagerness, timidity and resentment, they were glancing off to the right across the bare brown Fifth Regiment drill field.

Beyond and below was a new section of the camp, as large as the one they had already marched through. First there were the soft red roofs of about twenty acres of barracks with their smoking chimneys. Beyond was another open space, two or three times as large as the drill field, with a series of low buildings along its left edge, then long double ranks of O.D. trucks, dwarfed by distance, the rest of the area evenly spotted with scores of the odd-shaped, toad-like O.D. monsters that were guns under their tarpaulins. In the distance were more red roofs and another open space likewise sprinkled with guns.

"Platoon," called the sergeant, holding up his hand, "halt." The column in front had likewise been halted by its non-coms, after

closing up and those behind did the same. The non-coms ran a little way out on the drill field and each shouted to his delegation, "Face to the right—this way. Now everybody come forward."

The long lines got mixed up as they tried to obey. "All right, halt," shouted the sergeant in charge of Joe's delegation. "Now straighten out your lines."

When this had been approximately accomplished, the sergeant said, "All right, put down your duffle bags. You'll have a wait of maybe half an hour. You can smoke, but mash up your butts before you throw them away."

There was a great taking off of overcoats, wiping of foreheads and sitting down on duffle bags. But presently most of the men were standing up again to resume their overcoats in the faint November chill. Then the long ranks were all sitting down and motionless, coat collars up, chins in hands, each boy deep in his thoughts, a tableau of impotent mass dejection. A quarter of a mile in front of them the animation they had seen on the drill fields was continuing in fragments; batteries, platoons and details double-timing here and there along and across the battery streets; beyond them, figures like monkeys jumping around the guns, ripping off the tarpaulins; trucks moving out of the parks; from everywhere in the distance a medley of commands, accelerating motors, the clank of mechanical doings. Joe was thinking about his girl, trying to remember something pleasant he could put in his first letter.

III

HOME

TWENTY MINUTES LATER four soldiers appeared over the embankment across the drill field and walked toward the detachment of civilians. They had on natty brown slacks, woolen shirts and black ties without blouses, and they wore the fibre linings of their helmets. As they came nearer, Jack Boulter spotted the three chevrons on all their arms. "Looks like the real McCoy," he said quietly. "These are what they call cadres. They're the boys who are going to take over."

Across the drill field down to the left, four other groups of four sergeants each were heading for various sections of the long line. The group they had first seen came nearer, walking smartly and talking. They separated, each of them going up to the non-com who had been in charge of one of the first four cars of the train. The one who came up to Joe's sergeant and shook hands was a giant, with shoulders like a gorilla and a face like a horse.

"All right, boys," said their recent leader, "stand up and try to look human." Everybody stood up. "This here is Sergeant Butts. He's your platoon sergeant, 1st Platoon, Battery D, 14th Battalion, 5th Regiment. Well, so long, boys. It's been a pleasure to meet you. Next time I see you, you'll be soldiers—maybe."

He nodded to Sergeant Butts, walked briskly around the end of the platoon and started down H Street. "So long, Sarge," called Jack Boulter. "Have one on me." The disappearing sergeant waved without turning around.

"All right, men," said Sergeant Butts in a squeaky high voice that was incongruous with his bulk, "you can sit down again."

"Sweet Judas!" murmured Boulter, "a pansy!"

Sergeant Butts had extremely acute ears. Putting his fists on his hips, with the fingers visibly working, he moved toward Boulter. "What's yer name?" he demanded in a voice like a twanged wire.

"Boulter, sir," was the smart reply. "No offense, sergeant."

Butts stared at him with no expression on his big features. "Soldiered before, eh?"

"Three tricks, sir," said Boulter.

"Okay, Boulter," said Sergeant Butts. "The barracks'll need a little particular expert moppin' during supper tonight. You can eat first with the K.P.'s." For its first act as a unit, First Platoon, Battery D, 14th Battalion, 5th Regiment, snickered.

"If I may say so, Sergeant Butts," said Boulter unabashed, "it's a pleasure to meet an old soldier." Sergeant Butts disregarded this compliment, walked back in front of the center of the platoon, squatted with his back to the men, hunted over the gray-brown soil till he spotted a blade of grass, pulled it and chewed it gently.

The platoon sergeant's ruminations were interrupted by two staff sergeants who came down from Fifth Regiment Headquarters, one of them with a bundle of papers in his hand. As they came out on the field, the latter yelled, "Senior Sergeant of Battery D?"

"Yo," squeaked Sergeant Butts, jumping up and pacing to meet the newcomers. There followed the transfer of Battery D's papers to Sergeant Butts, and after that there was a delay while some dozen men were called out and marched away to join the Fourth Regiment which was a specialists' regiment for clerks, cooks, radio operators, telegraph operators and the like.

When these adjustments were completed, Sergeant Butts nodded to the other three platoon sergeants of D Battery, and each faced his platoon. Butts returned to his own. "Stand up, men," he commanded. "Pick up your duffle bags. Throw them on your shoulders. Face to the left—the left—the side you'd pitch with if you was a

southpaw. *That's the bright boys! Now—forward—harch. Column right—harch—you at the head there turn to the right, toward me—come on—that's the bright boys! Now just follow me. Let's see if you can keep step—One—two—three—four—Left—right—Left—right—Left—right.*" He danced up and down the little column, then took position to the front and right of it, marching backwards, counting.

Down across the drill field, down over what proved to be a ten-foot wall with ramps conveniently located, down across G Street, Sergeant Butts led Battery D into its immaculate, freshly raked Battery Street, which to the rookies meant only more buff-white, dull red-roofed buildings now ominously close on both sides of them. They marched on past the mess shack with its garbage racks on the street and its savory aroma, past the four barracks on the steps of each of which four or more non-commissioned officers now stood up, facing the new arrivals. At the end of the last barracks, with only the combined supply and orderly rooms between them and F Street, Sergeant Butts halted the First Platoon, and behind them the other three platoons were likewise stopped in front of their future homes.

Now Sergeant Butts underwent a transformation which the men soon learned was typical of him. He became soft-spoken and motherly, and wore a warm genuine smile. "All right, boys," he said, "here we are. Left face—face toward me. Drop your duffle bags in front of you. We won't keep you long."

He looked at four other sergeants on the steps, who came down and stood by him. "All of us non-commissioned officers," he said, "are what they call cadres. We're the sort of skeleton organization that stays here while the training cycles come and go every thirteen weeks. This here street you're on is D Battery Street. All of you along here are going to be D Battery, and you I've been marching are the First Platoon. We're one of the batteries of the 14th Battalion, and the 14th, 15th and 16th Battalions make up the Fifth



Field artillery officer with full equipment.

Regiment. Back of you there are the barracks of A Battery of the 15th Battalion. This here barracks in front of you is your own and I'm in charge of it. You will be divided in four sections, each under one of these here chiefs of section. The first two sections will bunk downstairs, and the third and fourth upstairs. I wouldn't ask any questions now, because we want to get settled and show you something more. When I call your name, pick up your bag and step out here in front. First I'm going to call the First Section."

He read off sixteen names alphabetically, pausing between each name for the man to step forward into a new line. A six foot four giant named Achs—presently to be nicknamed Peewee—was the first man called out, which meant that eventually he would be the right guide of the whole battery. The First Section exhausted the A's and part of the B's. When it was in order Sergeant Butts likewise called out the Second Section, lining it up alongside the First. He formed the Third and Fourth Sections in a second line behind the others.

Having got the men in order, Sergeant Butts said, "All right, First Section, this here is Sergeant Edwards that's your chief of section." Sergeant Edwards stepped forward and faced the men. He was of medium height, with dark eyes and a serious precise expression.

"All right, Second Section," said Butts, "this is your chief, Sergeant Lacey." Lacey walked over to his section and took charge. He was a tall, awkward youth with a nice smile.

Boulter glanced appraisingly from Edwards to Lacey and from Lacey to Edwards. He spotted them both as green non-coms, bright boys who had never soldiered till they came here. "First Section," said Edwards with a cultivated intonation, "right—face." Then, "Pick up your duffle bags and follow me."

He led them up the three steps and across the threshold. In front of them was the stairway to the second floor. On the right, down two steps, was the line of washstands of the washroom or latrine. Sergeant Edwards led them to the left around the stairs, down a

short hall, and out into the quarters, a long, stained pine room, warm from its central stove. Sixteen iron cots jutted from either wall, each cot turned down, revealing a pillow and fresh sheets under the brown blanket, two other blankets folded on the foot of the cot. On the wall at each cot was a tall wall locker, on the aisle end a little O.D. trunk or foot locker. There were plenty of windows along the sides, but the whole atmosphere was shadowy and brown and comfortable.

Sergeant Edwards stopped halfway down the aisle and stepped between two of the cots. "First Section, take the bunks from here on," he said. "Take any bunk you wish."

Boulter stepped in by the first bunk beyond the sergeant, dropped his duffle bag on the foot locker and looked around with a lofty appraising air. "Boy," he said, "how much did you say this room was? Ten bucks? And where is the bawth I awdud?" He looked directly at Sergeant Edwards. "Boy, it's a nawsty shame, but I'm afraid we cawn't take this here room."

Sergeant Edwards' mouth flickered toward a smile. "What's the matter?" he asked. "Too civilized for you?"

"Alaws, no," said Boulter tragically, "deah me, no! Look theah, my deah fellow!" He pointed at the nearest window. "My wife and I always gotta have pink curtains instead of blue ones." He faced the room and shouted, "Dear Judas, soldiers! *Curtains!* Now all we gotta settle is who sleeps with who!"

"That will do," said the sergeant quietly, and for the first time his black eyes looked straight at Boulter who returned the gaze impudently, braced to be overwhelmed by sarcasm and shouted down by authority. Instead Sergeant Edwards' face beamed into a warm and friendly smile. For a moment they continued to look straight at each other—the representatives of conflicting systems of military discipline. Suddenly Boulter's challenging expression relaxed and he

dropped his eyes. He heard his own voice saying, "No offense, sergeant."

"All of you pick your bunks," Edwards said to the room that was now filled up by the entrance of the Second Section. "There'll be a formation in ten minutes, when Sergeant Butts blows his whistle."

Joe Boom and Al Ainsworth chose bunks next to each other at the end of the room where the rifle racks—now empty of rifles—stood along the partition shutting off the quarters of Sergeant Butts and the other downstairs non-coms or cadres.

Ten minutes later the civilian-clad battery was lined up in the street again, this time without hats or overcoats, having been instructed to leave them in barracks. Sergeant Butts marched them up to the mess hall and in through the double doors at the end. "Sit anywhere, men," he shouted, standing at the far end of the room by the big black coal stove that had the chill comfortably off the air. On either wall beyond him were enormous ice-boxes, and beyond them was the counter that cut off the mess hall from the kitchen where the cooks in their white aprons moved methodically about their armory of ranges and racks of heavy utensils without troubling to notice the entrance of the new cycle. Like the non-coms, the cooks were cadre, part of the permanent skeleton organization of the battery.

When the four platoons of the battery—two hundred and fifty-six new men—had crowded into place on the benches by the long transverse tables, Butts squealed with artificial heartiness, "Come here, Sergeant Fellows!" A heavy man of fair height but with his head and pale impassive face slung low and forward, giving him the grotesque lines of an overgrown dwarf, came out from behind the counter and stood facing the room with no expression.

"Soldiers," squeaked Butts, "this here is Mess Sergeant Fellows. He and the top kick and the supply sergeant and the motor sergeant



Top kick casualty—first-aid training.

Cleanliness of rifle ranks with cleanliness of person.



are the big shots, next to the officers. If you don't like the food, my advice is, don't tell Sergeant Fellows!" The object of his introduction made no sign, but turned and stalked back into his kitchen.

"Judas, girls," said Boulter, surveying the clean, blue linoleum on the tables and the orange curtains, "ain't this lovely? All I want to know is, where's the flowers? We girls can't eat without posies."

"Saving the flowers for your funeral," grumbled Jeff Browne. Although it was only ten o'clock, the K.P.'s filed in from the kitchen, bearing huge plates of sugared doughnuts and pitchers of steaming coffee. There was a general taking in of breath and murmurs of "O Boy!" "Gee, ain't that something!" exclaimed Louis Brilliati.

"Gracious me," shouted Boulter, "a picnic at ten o'clock in the morning!"

"When you get through, set where you are," squealed Butts to the now busy room. "I got a announcement for you."

He went back to pass the time of day with Sergeant Fellows. The chiefs of section and a few corporals came down the central aisle and separated, one standing or sitting at each of the tables. From the moment the rookies set teeth in Sergeant Fellows' big fluffy doughnuts, there was never a complaint of his food.

Fifteen minutes later Sergeant Butts came out from the kitchen. Hands tipped up coffee cups to drain them, and others reached out furtively to get another doughnut and stow it in a pocket.

"In just a minute now," said Butts, "the cap'n's going to drop by to tell you hello. His name's Anderson, and I know this is the last time I'll have to tell you he's the finest guy you'll ever meet in this war or anywhere else. When he comes in I want to see you show him what's the simplest kind of military courtesy. You'll learn more about military courtesy pretty soon. This one's the easiest. When you're in a building and settin' down and an officer comes in, somebody'll holler, 'Attention.' You don't have to stand up. All you have to do is stop whatever you're doin' and sit up straight and polite like,

just lookin' at him and waitin' to see what he has to say. Most generally the officer will say, 'At rest.' From then on, just act like gentlemen. If the officer has some business that don't concern you, forget he's there; but if he has something to say to you, listen with particular attention. If he comes up to one of you personally, stand up to talk to him, just the way you'd be polite to anybody. Okay, boys, let's see if you can begin to act like soldiers."

Sergeant Butts went out the side door. A mumble of conversation began and increased, but most of the men sat up nervously and waited in silence. The non-coms at each table watched the men covertly. This was going to be the first test of who were going to be willing and who were going to be surly.

The side door reopened and the mumble of talk died suddenly. It was only Sergeant Butts returning. He took off his tin hat and lounged on the counter. The door opened again, he looked around casually, then snapped to attention, clicking his heels so they could be heard the length of the room. "Atten—shun," he shouted in the high, resonant tone he had used on the drill field. Mess Sergeant Fellows and the cooks stopped what they were doing in the kitchen and stood motionless, though unmilitary, as if stricken by a sudden spell. Most of the men at the tables sat straight up, but a few remained slouched over, either looking down or eying the Captain with hostile glances. The non-coms watched them, noting their faces, not yet knowing their names.

"At rest," said Captain Anderson, swinging off his tin hat and nodding first to Sergeant Fellows and then to Sergeant Butts. The kitchen force came out of its spell and resumed its duties like a machine thrown into gear again. The Captain walked over to a little table beside the stove and sat down half sideways on it, swinging one leg slowly in its fawn-colored slacks.

He was a big man, about thirty years old, his shoulders and chest

bulging under the tight fitting woollen shirt with its fawn-gray necktie and the two silver bars on the shoulders. His eyes were large, blue and intelligent in his round face that was sensitively quick to changes of expression. Under very blonde hair, his naturally delicate complexion was tanned to a ruddy brown. Suddenly he looked up and gazed intently at the room so that every man thought that he was looking at him personally. Just as suddenly he beamed into a gentle, contagious smile.

"Relax, men," he said. "I guess the first thing to learn about me is that I'm not going to bite you, just as the first thing I want to know about you is that you're not going to bite me. We officers and cadres are here to teach you what somebody else taught us not so very long ago. All three hundred of us are here to do the same job, and the first thing is to learn to be easy with each other and pull together. Relax and sit any way you want to. I've always found that the most comfortable way to sit at those tables is with your elbows on them."

There was a rustle as, one after another, the men took the Captain's suggestion. He continued: "I want to talk to you about several things, and first I may as well say something about what they call military courtesy. In the long run, military courtesy isn't something just between officers and men. It's something between all soldiers, whatever their rank. It just means that politeness is the best way for people to get along who are trying to do a job together. But military courtesy between officers and men does have some special importance, so I'm going to talk about that.

"In the first place, get it clear that what you salute is not the officer himself, not the man, but the office he holds that is shown by the insignia on his shoulders. When you salute me you're not paying me any compliment, you're just showing respect for these bars" (he touched his shoulder) "that the Commander-in-Chief has

put here. If you don't like me, you salute the bars just the same. If I'm not doing my job, somebody higher up will find it out, and pretty soon you'll have somebody else wearing the bars and being in command of you.

"Well, the history of war shows that when you get into action, or, for that matter, whenever a group of men—whether it's a million or two—have to do something in a hurry, there has to be somebody who's the boss, somebody whom the others are so accustomed to obey that they'll jump quick when he speaks. If they don't have that habit of instant obedience they'll probably hesitate some day at the wrong time, and maybe the whole group will be wiped out. That's why the first rule of the Army is to learn to take the orders of the officers as something to be instantly obeyed. In order to learn that habit, it's necessary that you get the habit of treating officers with respect in everything, even the smallest and least important matters of every day. Not only your own life, but the lives of others depend on your getting this habit.

"Incidentally, it has always seemed to me that the job of the non-coms is really harder than that of the commissioned officers because the non-coms are with you all the time. You don't see the officers quite as much, so it isn't quite so easy for you to get the low-down on them. The officers have a bigger responsibility than the non-coms, because if they make a mistake it affects the whole battery. But the actual work of the non-coms is harder, because they carry out the details and have to keep on their toes all the time. After your thirteen weeks of basic training some of you will become non-commissioned officers and some of you may become officers. Even while you are in the training cycle some of you will be made acting corporals, or even acting sergeants. Remember, it's a big responsibility when you get a couple of stripes on your sleeve."

Captain Anderson went on to explain the difference between the old and the new Army, how in the old Army soldiers were taught

their duties by threats and fear of punishment, but in the new Army the idea was to make the men like their work and do their jobs because they wanted to.

"It's been my observation," the Captain said, "that in the long run most men like soldiering. They get to be proud of their uniforms, and they are proud to carry themselves like soldiers, to do things with snap and precision. No matter how much you may grumble on the side, most of you are going to wake up a month or so from now, perhaps sooner, and find that you're proud of being just where you are. You'll go places on the double, not because you're afraid not to, but because you want to.

"My job is to get you into that state of mind as quickly as I can, because it's only after you get in that state of mind that we can work well together. It's up to me to know every one of you, just as if you were my sons. This may seem foolish, because some of you are as old as I am. But it's up to me to do it all the same. If there's anything really bothering any of you, I want to hear it. That's the first thing I'm here for, to listen to your troubles and make suggestions. If you're doing well, you can be perfectly sure I know it. If you're not doing well, it's up to me to find the reason why and try to set you on the straight track. If you think you have a real complaint and your chief of section or platoon sergeant can't fix you up, come to First Sergeant Smith in the orderly room—he's sort of my assistant in dealing with the men's troubles. If he can't straighten you out, he'll send you in to me. Just to get acquainted, I want every one of you to come down to the orderly room this afternoon or tomorrow, as soon as you've got your uniforms and know how to salute and stand at attention. First Sergeant Smith and I will be there waiting to meet you.

"Your first duty, starting after dinner, will be to get your fatigue uniforms and part of your equipment. The chiefs of section will march their sections to the supply room, starting with the first sec-

tion of the first platoon. This will take all afternoon and all of tomorrow for the whole battery, though it won't take over ten minutes for any one of you. Your only other duty this afternoon and tomorrow will be to learn by heart the drill regulations about standing at attention and saluting, and after that the guard general orders. As soon as you have your uniforms and know the sections about standing at attention and saluting, report to your chief of section in your barracks and he will show you how to do the two things you have learned. After he passes you, report to First Sergeant Smith in the orderly room, who will send you in to me. Saturday morning, day after tomorrow, you will be marched to the regimental dispensary to get your final typhoid shots and your first tetanus. If you weren't vaccinated in Reception Center, you'll get that too. There is never any duty on Saturday afternoon or Sunday except for punishment and special details. If anyone hasn't learned his guard rules and how to salute and stand at attention by noon on Saturday, he will have to stay in barracks until he has done it. You won't have to stand any formations or do special details until Monday, when the training schedule will start.

"You will find that the first concern of the Army is for your health and physical condition. I say this to break a piece of bad news. Every new consignment is kept in quarantine for two weeks after arrival. You can go anywhere in the battery street or in our gun and motor park across F Street, and you can visit each other's barracks in the battery. But you can't go to public places, like the post theatres, the Service Club, or the chapels. There are two exceptions. You can go to the 'P.X.,' the Regimental Post Exchange or store, between 4:00 and 6:00 in the afternoon. And you can go to the Battalion Recreation Hall whenever you're off duty. The other three batteries of the 14th Battalion are also new and in quarantine. After your two weeks of quarantine you can get passes



Practice laying—105 mm.

How she works—breech block instruction, 155 mm. rifle.



to go anywhere in the Camp or into town Saturday afternoon and evening and Sunday.

"I said that a good many of you are going to be a little sore for a while. The work, after the schedule starts, will probably be the toughest you ever did. It's going to be hard to get adjusted, and I understand all that and I'm here to help you. But there is one kind of man I don't like. He's the real sorehead who's a trouble-maker. He will tell you about the profitable job he left behind, and how this is a rich man's war or some such nonsense, how somebody is getting rich at home while you're down here working yourselves to death, and so forth and so forth. If you want to blow off steam and criticize the cadres or the officers, you can get away with that, so long as you've got the big idea and are trying to do your work. Also, if you're caught putting over a little too much gold-bricking, that won't cost you anything but a pass to town or shining windows or some other detail. But a real sorehead and trouble-maker who talks about what he's given up and criticizes the war generally is somebody I don't like and he may as well know it now. Some of us are going to give up a good deal more than good jobs before we get through, and we're going to do it gladly. It's not my business to preach to you. If anybody doesn't know what this war is about, he'd better find out.

"For the rest of you, which is pretty near all of you, I'm for you and I'm with you from the start. So are the other officers and the cadres. You're going through a hard mill. Remember that all of us have been through the same mill. You will never be told to do anything that every officer and cadre hasn't done before."

Captain Anderson lowered his eyes for a thoughtful moment, swinging his leg as he had before he started talking. Then he stood up, smiled at the room and walked briskly over to Sergeant Butts who clicked to attention.

None of the men had moved, and all eyes were fixed on the

captain and the senior line sergeant. They liked them both, but with a difference that few of them could have put in words. They thought that Butts was a good guy and one of them. But the captain, in spite of his youth, was more like their father, someone who was a little austere and remote, but whom they could trust to take care of them. It would be hard to say whether the difference was due simply to the captain's greater authority; or to the fact that he was of the new psychological Army while Butts was really of the old Army; or to the fact that Anderson was an educated man, whereas Butts had never gone to high school; or whether the difference went to something deeper in the two men. No one felt it more than Sergeant Butts himself who looked with adoring eyes at this officer who was five years his junior.

IV

IN A MILITARY MANNER

BACK IN BARRACKS each man found two mimeograph sheets lying on his bunk. Joe Boom, being a curious boy and thinking that now he was going to learn something about the guns, picked up the papers and lay down. But a cadre he hadn't seen before, one Corporal Storm, began shouting to the milling room, "Stow away your duffle before you do anything else. Your wall locker is for hanging things up, your foot locker for everything else."

It took Joe five minutes to comply. Then he took off his coat and lay down to read the regulations. Now he was going to learn how to fire the big guns!

Instead, he read drill regulations on the first mimeograph sheet that concerned standing at attention and saluting. Having glanced through this, Joe put the sheet down and read the other one: it had to do with guard general orders.

Joe felt a little disappointed at the prosy quality of all this, but he saw the point. There were probably a few things about being a soldier that a guy had to learn first, before he went to work on the guns. The prospect of going on guard, maybe at night, was kind of exciting. But the captain had said to learn the other sheet first, about standing at attention and saluting. Joe lit a cigarette and settled down to it: "The position of attention—"

Presently the dice were rattling on the floor of the central aisle, and the usual appeals to them were filling the air. Joe loved to shoot crap, but he set his jaw and tried to shut out the sound. He remem-

bered something he'd heard somebody say once about the life of a goldfish.

Half an hour later Joe shut his eyes and said to himself the contents of the paragraphs about standing at attention and saluting. When he opened them Sergeant Edwards was out there in the aisle. "The First Section give me your attention," he said. "Immediately after dinner you will draw your fatigue uniforms and equipment. This means that you are to eat fast. Dinner is at twelve. You'll hear the bugle at Regiment in a few minutes. Get up to the mess hall in a hurry, and be back here by a quarter of one."

Sergeant Lacey came out of the cadres' room and told the Second Section to be here at half past one. "There she blows, soldiers," shouted Boulter, jumping up. "First Section, front and center." In the distance they could hear a recorded bugle call, the animated jiggle of "soupy-soupy-sou-py."

The First Section jumped up and ran to the mess hall where each table steamed with heaping platters of beefsteak and onions, mashed potatoes, and stewed tomatoes, along with plates piled with thick slices of bread, saucers with pound chunks of butter, and big pitchers of milk and water. Later the K.P.'s carried off the heavy dinner plates and brought on saucers of fruit cup, mounds of cart-wheel cookies and pitchers of cocoa.

At one o'clock Sergeant Edwards marched the First Section to the supply room next door, where they were admitted in groups of four, as summoned by Supply Sergeant McQuade, a sandy-haired young man who wore a pencil over each ear. Joe was in the third four to enter the sanctum of battery property, Al Ainsworth having preceded him in the second four. The long supply room was windowless and its lights were on. At the left as Joe entered were four shoe-store chairs with shoe-store stools in front of them, a soldier with a sliding foot measure sitting on each stool. Beyond was a counter

the length of the room, with a dozen soldiers like clerks standing behind it, and a dozen more between them and the ceiling-high stacks of clothing and equipment along the wall. All of these soldiers had on their collars the circular insignia of the Quartermaster Corps instead of the crossed cannon of the Artillery.

After Joe had been fitted and supplied with two pairs of shoes, he was shunted along the counter from clerk to clerk, while tape-measures plied around his sundry dimensions and the room became a bedlam of calls of sizes for him and those ahead of him and behind. As if moving along an assembly belt, he gradually accumulated a two-foot-square heap of clothing and equipment, each item descending at a precise spot where it would stick if the bundle were held tolerably level. Ten minutes after he entered he crowded his way out and returned to the squadroom.

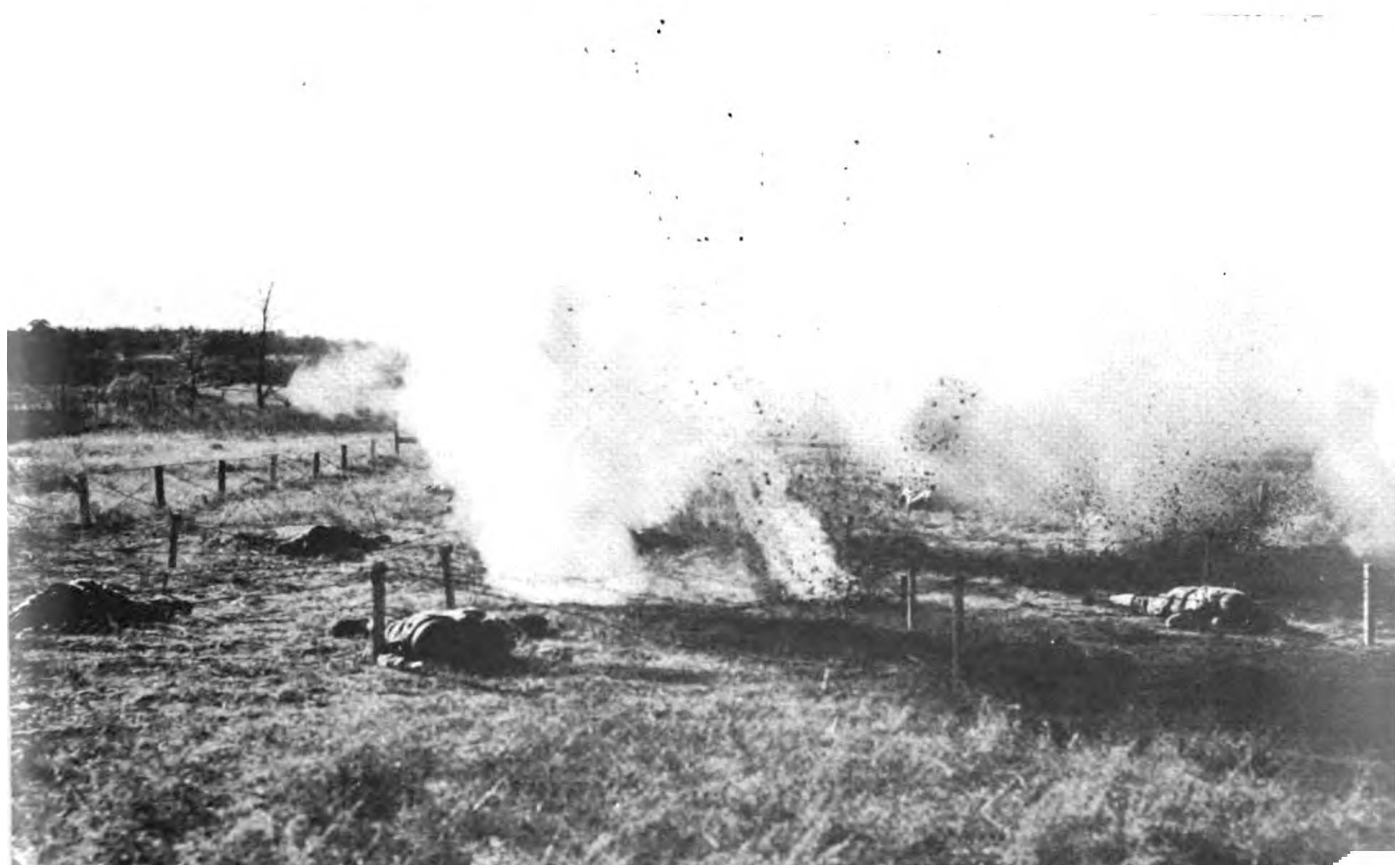
When Joe entered the barracks Al Ainsworth and the seven others who had preceded him through the supply room were already donning their new clothes under the supervision of Corporal Storm. Fifteen minutes later Joe stood replete in full G.I. (general issue) fatigue uniform, from "dog tag" (identification disc with his name and number, hung round his neck under his clothes), new shoes, socks, long winter underwear and brown shirt, to crisp fresh O.D. pants tucked into calf-high leggings, blouse, cartridge belt with first aid packet attached, and the O.D. lining of a tin hat like a copious inverted bowl. On the collars of his shirt and blouse were the insignia of the Artillery. On his left breast pocket was pinned his name plate, "Pvt. J. Boom," and on the foot of his cot another name plate was attached by adhesive tape. On his foot locker a strip of adhesive likewise bore his name, and within were his canteen, mess kit, extra shoes, socks, underwear and shirt. In his wall locker hung his new O.D. overcoat, raincoat and gas mask, with his barracks bag and overseas cap on the shelf above.

Corporal Storm inspected Joe, walking round him, yanking down



Close-up of practice laying of a 105 mm. gun.

Down! Land mines going off on commando course.



his blouse, and after he had approved him he made him the set speech for each soldier when he got his first equipment—"Get wise to your equipment, Boom. You're charged with it, and if anything is missing at inspection it comes out of your pay. Keep your shoes and your buttons shined, or you can't get a pass."

As Joe stood self-consciously in the full regalia of a soldier, Sergeant Edwards came in with the last four of the First Section, walked down the aisle and disappeared into the cadres' room. Joe looked at the two papers he had left on his bunk, and his heart did a somersault. He picked up one of them, read through the two paragraphs about attention and saluting, closed his eyes, repeated them to himself, then walked shyly up to Corporal Storm who was fussing around Sam Collenski. "Corporal," said Joe with a timid grin, and using a military title for the first time in his life, "I'm ready to recite those things to the sergeant, like the captain said."

"Okay, Boom," said the corporal. "Report to Sergeant Edwards in the cadre room."

Joe walked down the aisle as directed and stood hesitant at the open door. There were four cots in the room for the two section chiefs and two corporals. Sergeant Edwards sat at the table looking out the window.

"Can I do anything for you?" he asked.

"I know those rules about attention and saluting," said Joe.

"Very good," said the sergeant, "come in."

Joe closed his eyes and spoke his piece perfectly, not understanding any of it.

"Now let's see you stand at attention," said the sergeant, himself rising and assuming the model posture. Joe stuck his chest out too far and his shoulders back too violently and he forgot about his feet. The sergeant shoved and poked him professionally till he had him in some kind of shape. "All right," he said, "at rest."

"Now, once more," said the sergeant in a subdued tone, "atten-



Night—live ammunition—tracer bullets—and the men hug the ground on a commando course.

Chow in the field—cleaning mess kits.



shun." Joe's heels didn't click, but he got himself gradually adjusted and held it and his breath.

"Now let's see you salute—smartly." The sergeant snapped up his own flat hand to his tin hat. "Okay," he said, "salute." Joe got his hand up and the sergeant had to do a lot of adjusting of the elbow, wrist and palm. "All right, now—down—snap." Joe snapped down his hand so hard he hit himself in the thigh.

"Once more," said the sergeant, "salute." After having him repeat the exercise half a dozen times, Sergeant Edwards looked at Joe's name plate.

"Okay, Boom, that will do. Go down and report to First Sergeant Smith in the orderly room. That's at the other end of the same building as the supply room."

Joe walked on nervous air down through the barracks that was filling up now with part of the Second Section returning. He had almost escaped when he heard Jeff Browne's voice—"Look, guys. Three cheers for teacher's prize pet!"

"Hurray!" rose a single yell. Joe ducked out the hall with a couple of civilian shoes following him.

The orderly room opened on F Street and in spite of his nervousness, Joe paused to gaze long at the tarpaulined guns in the park across the way. Then he turned to the door that was open. "Come in," said a deep voice.

Joe swung back the screen, tripped but did not fall on the threshold, entered and stood at attention, feeling and looking frightened. Before him, behind a desk, sat a haysack of a man with a rough, ruddy face and coarse hair streaked with gray. He had three chevrons and a diamond on his arm. Joe knew it was First Sergeant Smith. He stiffened his position of attention, holding his breath. The "top kick," who was easily old enough to be his father, smiled in a grandfatherly way. Sergeant Smith was really of the old Army,

being fifteen years older than Butts, with hardly anybody on the post of his vintage below the rank of Lieutenant Colonel. He was on limited service, with a heart, and knew he'd never get out of this detail. For years in the Regular Army he had been mothering both young enlisted men and young officers. The Army Regulations were printed on his bones, and whether a day's duty was easy or tough, it was just another day's duty to him.

"Not quite so stiff, son," he said to Joe in his warm bass. "Ever stand at attention before?"

"No—sir," said Joe through teeth clenched with nervousness.

"You've got the right idea, but just take it a little easier. It will come natural pretty soon. Can you salute?"

Joe snapped up his hand.

"That's good," said the top kick. "At rest. What's your name?"

Joe relaxed and said, "Boom—sir."

The sergeant consulted a big sheet in front of him, looked up at Joe and smiled with the corners of his mouth. "Joseph Boom?"

"Yes, sir."

"All right, Boom. When you go in to the captain step right out to the middle of the floor, come to attention, salute and hold it while you say, 'Private Joseph Boom reporting to Captain Anderson.' When he returns the salute, drop yours. When he says, 'At rest,' separate your feet a little and fold your hands behind your back. When he says to go, salute again, hold it till he returns it, then snap down your hand, about face and scam."

Joe ran through the exercise with Sergeant Smith, who was going to correct him, but there was a step outside. "That's good, Boom," he said, "go on in there now," nodding to the door in the central partition.

As Joe stepped to the open door, Jack Boulter came in from outside, and Joe paused to admire the easy way he clicked his heels.

"Private John Boulter," he said, "reporting to the First Sergeant and asking permission to see the captain."

"Okay, Boulter," said Sergeant Smith, "I noticed your record. Went over the hill once too many times, eh?"

Boulter lapsed from his rigid stance and smiled. "Don't figure to need a vacation this war, Sergeant," he said.

"I see," said the top kick, and Boulter watched the corners of his mouth twist in a way that meant he could peel off his hide with sarcasm if he wanted to.

"Just walk right in, Boom," said Sergeant Smith to Joe, who was still pausing at the door that was ajar. Grimly he pushed open the door, saw the captain with swimming eyes, advanced, tried to bang his heels as Boulter had done, saluted and spoke his piece.

Captain Anderson, sitting up straight, returned the salute, said, "At rest, Boom," relaxed himself, and added, "So you're the first man of Battery D to get by your chief of section. Congratulations, Boom. That's a fine start."

The captain was fumbling through a file of cards and found Joe's. "I see you're from Ledgefield, Ohio, Boom. I'm from Cincinnati myself, and I've driven through Ledgefield plenty of times. Have they still got the old watering trough at the main corner where the light is?"

"No," said Joe, adding, "sir," a little late. "We voted to turn it in for scrap."

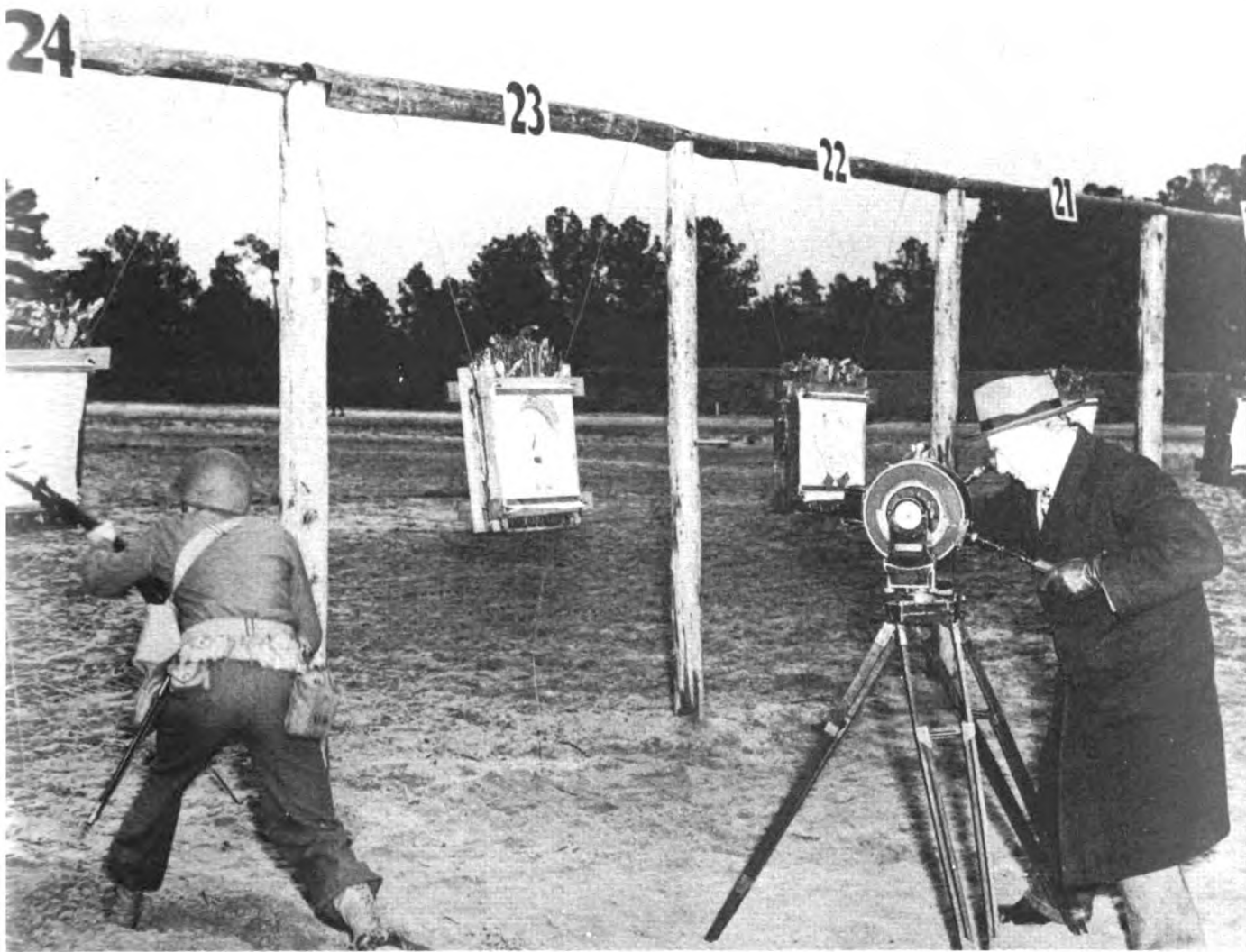
"I see here that you can play the banjo. That's fine."

"Just a little—sir," said Joe.

"That's probably bad news for you. When we're on hikes, after duty's over, we like to have a little music."

"Do what I can—sir," said Joe.

"All settled, are you?" asked the captain. "Is your bunk comfortable? Your bunk is mighty important after you've hiked eight or ten



Military art—bayonet, enemy and photographer.

miles. If there's anything wrong, be sure to tell Sergeant Edwards."

"Seems okay, sir," said Joe.

"And remember, if you're in any trouble, or if you have any real complaints that Sergeant Edwards and Sergeant Butts can't tend to, don't hesitate to come down here, and either Sergeant Smith or I will take care of you."

"Okay—sir," said Joe. He was feeling easy now and added, "Captain, sir, if it's okay to ask, what's that big sort of table hanging on the wall, all varnished and all, and with words and lines on it?"

"That's just a chart of the battery," said the captain, "with the titles of everybody. Under each title there is a hook, and on the hooks under the titles of the officers and cadres there hang little tags. Each of those tags has on it the name of the man holding the job named above it. We haven't yet got around to making out tags for the whole new battery. Yours will be in either the cannoneer or the driver column under 'First Platoon, First Section.'"

"When do we shoot the guns?" asked Joe eagerly.

"Springfields?" asked the captain.

"The real artillery—like—I mean."

"Oh—the 105's? You'll start drilling on them a little in the first week, but we won't fire them till the eighth week, the end of the second month."

Joe's face fell.

The captain made a notation on Joe's card. "Well, Boom," he said, "I'm mighty glad to meet you, and congratulations again on being the first to get down here. I see some others waiting, so I'm afraid I'll have to ask you to go now. The best of luck to you. The first two weeks are going to be the toughest. After that, it's my guess that you're going to like the Army."

The captain nodded and Joe snapped up to his strained salute. The captain returned it solemnly, and Joe turned and ran out to the orderly room where a dozen were now crowded in. He pushed his

way out of doors, bumped into Al Ainsworth coming in, and beamed into a triumphant smile.

As ordered by Sergeant Butts, Jack Boulter reported for evening mess with the K.P.'s at five o'clock, and when the battery went to mess at 5:30 returned to mop the barracks. Butts came down at six to inspect his effort, and told him to mind his lip in the future.

Later in the evening, during the quiet time when many were writing letters or reading, Jack went up and knocked on the door of the platoon sergeant who had a separate room across the little hall from the other four cadres on that floor.

"C'min," squeaked Sergeant Butts. "What's eatin' you now?" he demanded as Boulter stepped in and closed the door behind him. On Sergeant Butts' table was a fancy filigree gilt frame containing a picture of his wife.

"No kid, Sergeant," said Boulter, "I've got to ask you to set me straight on something. Are we in the Army, or ain't we? When you tell me off and set me to moppin' up, I can savvy that. I feel at home. But what's all this about runnin' to the old man with our bellyaches, as if it was a Sunday school? I don't get it. Don't figger how you can make a soldier that way."

Sergeant Butts' eyes flickered and he leaned forward and didn't look at Boulter when he replied. "Soldier," he said, "I told you a'ready this was a new Army. They'll treat you like sugar, but they'll sure run your back off, like they never did in the old days. We talked tougher then, and we acted tougher in some ways—like maybe you've heard of soldiers bein' beat up by N.C.O.'s. Was beat up myself once. We looked tougher then, but I'm tellin' you that the things they do, *in line of duty*, are tougher now. You figure you're an old soldier and can take it. Well, I'm tellin' you there's youngsters out there never got up for reveille in their lives that'll leave you near faintin' on them obstacle courses, or even just marchin' and double

timin' round. The old Army could march rings round these kids on the parade ground, but the old Army'd be puttin' its lunch at some of the things this new Army can do, all of 'em. We'll start right in Monday and work 'em up till they can eat nails. Your past experience don't help you here, except these first little jumps about knowin' the ropes that they'll all catch onto next week. You've got to watch yourself, soldier, and I'm goin' to take particular pleasure in dressin' you down. My guess'll be you'll be the first son-of-a-gun whimperin', come along about a week from today. And the next will be that kid Browne. And so they'll go on down accordin' to how loud they talk. The quiet ones'll be the guys that'll beat us all home."

"Sort o' figure to make athletes out of 'em, eh?—'stead o' soldiers."

"Maybe it's okay," said Butts, "and maybe it ain't. But one thing I'm tellin' you. That kid our old man's got the stuff every way. He's a soldier and an officer and a gentleman, like regulations says."

They were silent a moment. Then Butts looked round impatiently and ended by sitting up and looking directly at Boulter. "Well, soldier," he said in his squeakiest tone, "I've give you the low-down like you asked."

"Thanks, Sarge," said Boulter. They looked at each other with the slight twist at the corner of the mouth, the half-sophisticated, half-affectionate, half-sadistic, half-smile of old soldiers.

During the evening the horseplay that had started earlier rose to a preliminary high. Boys thrown together suddenly from every part of the country, none of whom had seen each other twenty-four hours before, were beginning to wear through the first politeness and casual braggadocio. They were beginning to see actual traits in each other, usually the worst traits first. The one who saw a trait began to exercise his own self-assertiveness against it, and remarks began to wear a really personal barb. The repartee ranged from harmless wit causing real laughter, down through sarcasm to insults and

invitations to step outside. Animosities and friendships were in the making, though few of either, begun so early, would endure. Joe Boom and Al Ainsworth already had the respect of the room and were let alone. Joe wrote letters to his mother and his girl, telling each of them how "I had a little talk with the captain." Afterwards he got in Jeff Browne's crap game. Al Ainsworth spent the evening studying the guard rules.

After he came back from Sergeant Butts' room, Jack Boulter had taken no part in the wisecracking of the evening and he was let alone. He sat for a long time on the steps, not only mashing up his butts but saving the empty paper and afterwards putting it in the stove. He was the first to the shower, and was in bed at 9:30. At Corporal Storm's command he instantly put his light out. He contributed nothing to the gradually diminishing talk in the darkness.

At the first, distant, slow flourish of taps Corporal Storm stood in the light of the cadres' room and commanded, "Silence, men." The room simmered down into obedience and there was no sound. Taps sang to its close, and was repeated faintly, still farther away in some other area. Heavy breathing rose from one bunk after another, till the whole squadroom hissed and gallumped, at a sort of slow boil. The breathing steadied and grew softer. Everyone was asleep but Jack Boulter who, lying on his back, addressed the dark ceiling in clear, decisive and fully conscious tones:

"It's a cock-eyed funny Army."

V

MONDAY

ON THE WINTER routine, first call was not until 6:30, with reveille at 6:40, and the training schedule for the first week looked innocent enough on the bulletin board. On Sunday night, Joe left his clothes on his foot locker, laid out in reverse order for quick dressing. He slept fitfully. At an indeterminate moment he came wide awake and sat up in the darkness, hearing stealthy noises from the direction of the cadre room. Gently from far away the regimental megaphone rippled out its recorded First Call.

Instantly the central lights of the barracks flashed on, and the two section corporals stamped out into the room, buttoning their shirts. "First Call," shouted Corporal Storm. "All right, men, roll out."

The barracks became a cattle-pen of grunts, groans, curses, wisecracks and body smells, rushings to and from the latrine, the shouts of the corporals, "Okay, men, jump into your G.I.'s and report outside to your chief of section. Three minutes to go—two minutes to go." Almost nobody got his leggings laced straight or his blouse buttons in the right holes. There was a jam in the hallway to the exit.

Outside in the darkness the four chiefs of section stood with flashlights marking the right of the lines of their respective sections, the First Section in front, and so on back. "First Section, here"—"Second Section"—"Third Section"—"Fourth Section." The men milling and cursing, the cadres shoving them around, flashing the lights in their faces, then down on their books. "What's your section?"—"What's your name?" The sergeants walking up and down

their lines, calling their rolls, shouting the names of those missing. Late arrivals groping out of the barracks door, stumbling down the unseen steps. From Regimental Headquarters the gay jingle of reveille:

You can't get 'em up,
You can't get 'em up,
You can't get 'em up
In the morning.

The distant boom of the reveille gun. From up beyond the Second Platoon, First Sergeant Smith's whistle like a knife cutting through the racket.

The confusion quieting down, the sergeants again checking their lines and calling the names of absentees. A few last arrivals, buttoning their blouses as they emerged from the light of the door. The glow of cigarettes concealed in hands.

Pete Alum's place in the front rank was still empty. "Here you"—Sergeant Edwards flashed his light on the corresponding man in the rear—"step up in the front rank." It was Joe Boom. "That will be your place from now on," said the sergeant. Joe was beside Al Ainsworth, where he wanted to be. From regiment, the Assembly:

Now dress yourself in line,
And be sure you're looking fine.
Snap it up—snap it up—
To attention and stand.

From up beyond the Second Platoon, Top Sergeant Smith's bull bellow, "Battery—Attenshun." An irregular thumping of heels together. The quiet voices of the cadres—"All right, quiet, men—shut up, you—stand at attention." Silence, but for a few grumbles. The top kick's voice—"Call rolls."

The chiefs of section reporting to the platoon sergeants—Sergeant Butts visible against the window lights of the barracks,

standing at attention facing the platoon. Sergeant Edwards' voice, from the front of his section—"First Section, one man absent, sir." A clatter at the barracks door. Pete Alum standing hesitant in the light. Sergeant Edwards—"First Section, all present or accounted for, sir. Go back in barracks, Alum." Sergeant Lacey's voice—"Second Section, all present or accounted for, sir." Sergeant Roe—"Third Section, two men absent, sir."

The top kick's command—"Report." Sergeant Butts, doing an about face to the front and saluting, "First Platoon, two men absent, sir." The three other platoon sergeants reporting in the darkness up the battery street. The top kick reporting to some unseen personage.

A new voice, that of Lieutenant Van Dine, as deep and resonant as Top Sergeant Smith's, but younger and smoother—"Take your post." Top Sergeant Smith marching to the right of the battery, doing by-the-right-flank, halting with a thud of heels beside Peewee Achs at the right of the First Section, doing an about face with another thud and standing at model attention.

The voice of Lieutenant Van Dine from the front of the center of the Battery, up beyond the Second Platoon—"At ease. Platoon sergeants will see that absentees from reveille report to Captain Anderson at the Orderly Room at eight o'clock drill call. Chiefs of section will turn in the names of men late for reveille. Beginning with retreat formation tonight, chiefs of section will turn in the names of men carrying cigarettes in formation or failing to stand at attention, or lacking any article of regulation, uniform. At 7:30 all men will be in barracks and section cadres will see that each man makes his bunk properly and polices the floor around it. At 7:45 platoon sergeants will inspect barracks and take the names of men improperly clothed or who have failed to police their bunks. First Sergeant—dismiss the Battery."

Sergeant Smith took two paces to the front and faced to left. The detonation of his voice made the First Platoon jump, like two successive reports of a field gun—"Bat'ry—dismissed." The voices of the chiefs of section—"Fall out, men—fifteen minutes to shave before breakfast."

The First Platoon jamming into the barracks. The confusion of everybody crowding the latrine, sixty-four men shaving at twenty washstands. The banging of foot lockers as shaving apparatus went back into place. Faintly from regiment the jouncy call of "soupy." The rush for the mess hall and breakfast of grapefruit, cereal, sugar, fresh milk, hot cakes and syrup, bacon, buttered toast and coffee.

The men drifting back to barracks in the gray daylight, the barracks lights now switched off. Sergeant Edwards and Corporal Storm supervising the policing of the First Section, First Platoon. The brooms and dust pans going from impatient hand to hand, the contents dumped in the waste box in the aisle. Bunks being made and remade, blankets being folded and refolded, extra shoes being set against the wall, all according to regulations, under the instruction of the cadres.

At 7:45 Sergeant Butts emerging from his room and squeaking, "Attenshun—everybody take post at your foot lockers, facing the aisle." Sergeant Butts, followed by the other cadres, going slowly down the aisle, peering under bunks, pointing a scornful finger at occasional flicks of ashes or bits of paper on the floor, taking the names of the culprits in his notebook, at the lower end of the room turning back to shout, "At rest, men," and disappearing to make the inspection of the Third and Fourth Sections upstairs.

At eight o'clock the drill siren screamed from the northeast at Training Center Headquarters and everybody tumbled out into the battery street. The section chiefs arranged the First Platoon in two

ranks instead of four, the four sections in line instead of two in front and two behind. Sergeant Butts took over the platoon. "At ease. Stick up your right hands." The section chiefs and corporals instructed those who raised their left by finding out which hand they threw a baseball with.

In fifteen minutes Sergeant Butts, quoting drill regulations, gave the platoon a rudimentary understanding of "Right face," "Left face," "Forward march," and "Platoon, halt." For the latter purpose he marched the platoon in column of twos down to F Street, gave it "Right face" twice and marched it back, frequently halting it and starting it again, while the chiefs of section counted time and danced about the little column. All the cadres now carried varnished sticks over a yard long, variously painted in gay colors. No one understood yet what they were for, but they gave their bearers an air of swagger.

During the latter part of these manoeuvres a slightly built lieutenant with large dreamy eyes was leaning against the corner of the supply room, watching the instruction. When the platoon was back in its original position outside the barracks, he came slowly up to Sergeant Butts who faced him and saluted. "Okay, Sergeant," he said as he returned the salute, "take your post." His voice was so low that it was hardly audible to the men. Sergeant Butts marched snappily to the left rear of the line.

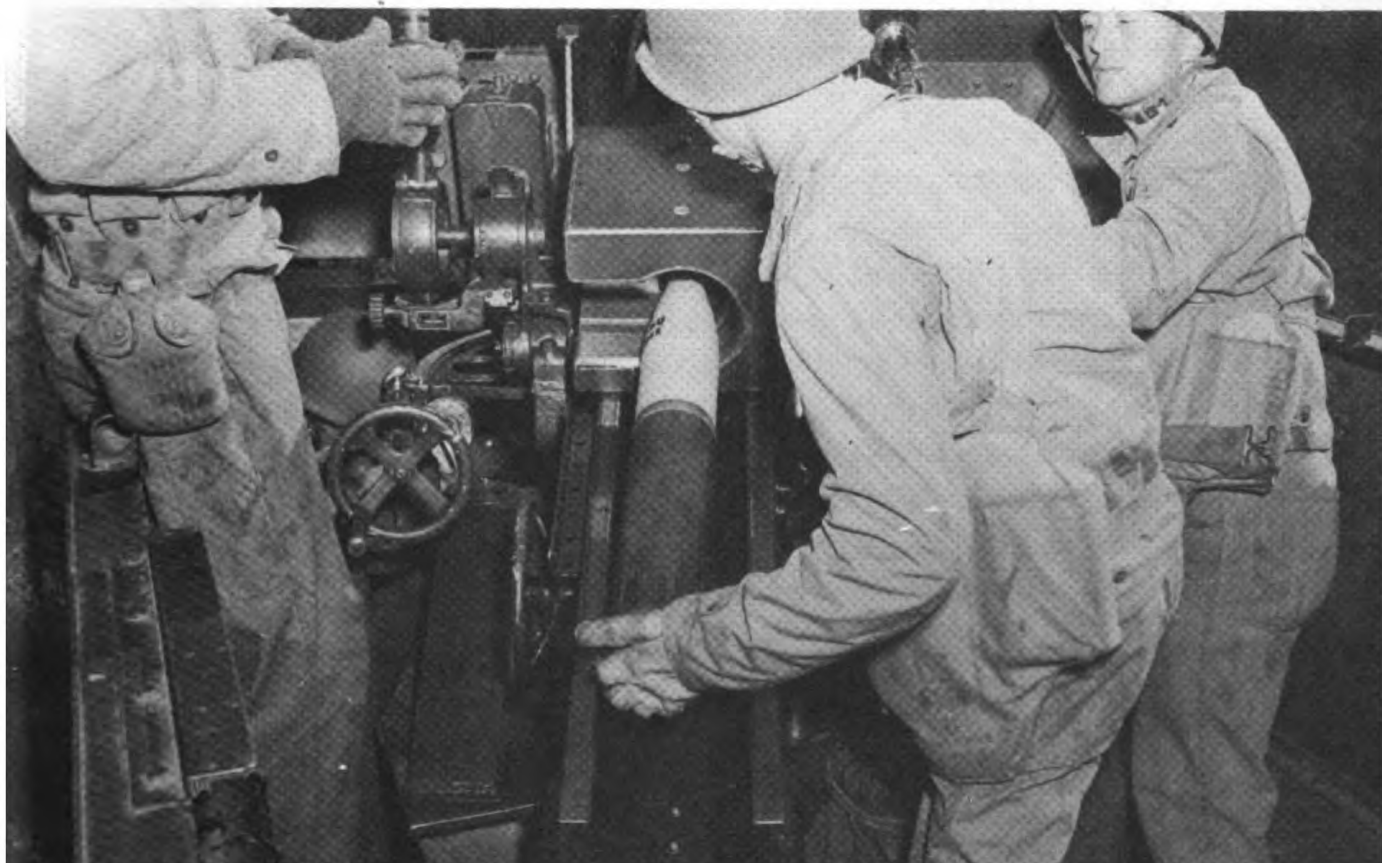
"At ease," said the lieutenant. His voice was only a little louder than when he had addressed Sergeant Butts, but there was an electric quality in it, like friction sparks on velvet.

The lieutenant's gentle face wore a faint smile. His accent was southern. "My name's Lieutenant Landon," he said, "and I'm your platoon commander. Sergeant Butts is second in command, and I guess you all know your chiefs of section and corporals. All I'm aimin' for is to make this the best platoon in the battery, and the



Ten rounds prone—rifle sighting.

Loading a 105 mm.—Gunner, Number One, and Number Two.



battery's goin' to be the best in the battalion. First, let's try to get over millin' round like a herd of goats, and see if we cain't stand up straight like two rows of corn. When you stand at attention don't push back your shoulders like you were tryin' to crease yourself backwards, and don't stick out your chests like you were the strong man in the circus. Just stand straight and easy, with your shoulders square, your belly sucked up a little, your hands hangin' naturally at your sides, thumbs on the crease of your pants, knees straight, heels together and toes turned out just a little. Now then—Platoon, 'tenshun."

There was a magnetic twinkle in his eye and a click in his voice. For the first time the platoon executed a manoeuvre in almost perfect unison, the feet sliding together with a single whack.

"That's mighty good," said Lieutenant Landon, while the sergeants were going down their sections, tapping bellies in with a touch of their sticks, setting back chins that stuck out too far.

"Now, here's somethin' new," said the lieutenant. "Whenever you fall in in close order like this, everybody in a line except the last man on the left puts up his left elbow, and everybody except the first man on the right looks to the right and does what you call dressin' to the right, which means movin' up till the elbow of the man on his right just touches his arm, then takin' little steps till he's just in line to the right. That's the way to get things all nice and even. When you've got yourselves all straight, drop your elbow with a snap and look to the front. Now, let's try it again."

After a pause he said with a sudden bark, "Platoon, 'tenshun." The heels clicked. "Dress it up, men. Let's see those left elbows up and those eyes to the right."

When the two lines were dressed, the lieutenant said, "Now, watch yourself. Right face." Most of the men executed it crudely, and the rest got themselves turned so the platoon stood in column

of twos. "Now, boys," said Lieutenant Landon, "we're goin' for a little walk, just to start shakin' some of the city dust out of our pants. Just follow where I lead you without botherin' how you make the turns. When you march at attention, keep everything above your waist the same as when you're standin' at attention, only swing your arms across in front of you smartly and breathe deep, with your bellies more than with your chests. Most important of all, keep your distance, just forty inches from your chest to the back of the man in front of you. Those little sticks of the cadres are just forty inches long, and they'll show you the right distance when you get off. All right, here we go. Forward, *harch*—One—two—three—four—One—two—three—four."

Most of the men started wrong, but they were hippity-hopping into step when the lieutenant commanded, "Platoon—*halt*," just as the front of the column of twos was on the footpath of F Street. Half a dozen trucks were passing. During the delay the cadres went along the ranks with their sticks, adjusting the distance. "Forward—*harch*." The lieutenant led them across F Street and turned the head of the column left along the right side of it, while the chiefs of section stood successively at the point of turning to prevent the men cutting the corner.

"One—two—three—four—One—two—three—four." Lieutenant Landon's voice was now fully alive, barking the cadence like rifle shots. Jauntily they marched along the edge of F Street, Joe Boom feeling a new spring in his step—now he was a real soldier! They moved past their own battalion gun park with its sixteen tarpaulined monsters, past their motor park with its lines of dozens of trucks under their tarpaulin covers, past the motor sheds, while jeeps, trucks and motorcycles streaked and rattled by them both ways in the center of the road. Across Fourth Street, down a short block and across Third Street into the precinct of the Fourth Regiment,

its dispensary on the corner. Down the long block beside the Fourth Regiment barracks, the Fourth being the specialist regiment for cooks, clerks and the like, and having no gun park. Across Second Street with the Fourth Regiment Chapel on the corner, its P.X. next to it, and beyond the Center Theatre.

"One—two—three—four—One—two—three—four." Out into the country—on the left the Headquarters obstacle course with men jumping, climbing, swinging and crawling their way along it. Out into the flat, gray land with the scrub oaks and pines on the limitless, gray soil under the limitless, gray sky. Lieutenant Landon turned now and walked backwards at one side of the head of the column. "Now, men," he called, "let's stretch out a little." He increased the tempo of his counting, and the section chiefs took it up with him, whipping the men into an ever faster cadence.

Joe was already sweating, and now he began to pant. But he kept his head up and his body straight. The cadres began to address those lagging by name, and their sticks whisked between the twos, adjusting the men to their distance.

All the time, the lieutenant was walking backwards in front of them, smiling, cracking out the cadence. Joe had a stitch in his side, and his feet began to hurt. The feather-light, fibre lining of his tin hat weighed a ton. He set his teeth and wished they'd given a guy a chance to ease off on cigarettes and get in condition.

Hours and years past, and Joe saw nothing. He was only agony, in every muscle. Somebody fell down and there were feet running around him. From a great distance came a sound—"Platoon—halt." Joe was able to stop, but Amkovitch behind bumped into him and sent him staggering into Ainsworth in front. Lieutenant Landon walked back along the column, smiling roguishly, cool as a cucumber. "Dress up the column," he commanded. The cadres got the stragglers up to proper distance. The lieutenant looked at his wrist

watch. "That's pretty good, men," he said, "two miles in twenty-five minutes. Pretty soon we'll be able to do a little walkin'. Fall out to the right of the road for five minutes."

Most of the men flopped on their backs on the gray soil, but Boulter, the gigantic Achs and a couple of others did not deign to rest. When Sergeant Butts came by, Boulter smiled at him. "Okay, Brother," said Butts confidentially, "wait till the youngsters learn to march. Best take your rest while you can."

When the five minutes were up, Lieutenant Landon had Sergeant Butts fall in the platoon, gave the men "at ease," and explained how to change from quick step—which they had been doing—to double time, and back to quick step again. The lieutenant illustrated it for them, counting for himself, then took them out section by section and put them through the changes.

Having reassembled the platoon, he faced it to the left and started the homeward march, what had been the tail of the column before now being in the lead. Joe felt much revived as they started, but after five minutes his feet were hurting and heavy again. Then came the command "double time," and they trotted for two minutes to the fast counting of the lieutenant and the cadres.

When they returned to quick time, the numbness of fatigue began to return, and Joe found himself longing for the command of double time again. It came after another five minutes, and it was plainly a relief to everybody from the forced walking, for there was no straggling while they were at double time.

The march back was faster than that out. When they were passing the Fourth Regiment barracks Joe anticipated reaching "home" and flopping on his bunk. Instead, Lieutenant Landon swung the column right on Fourth Street, and the first thing they knew they were marching out on the drill field, passing behind a series of a dozen or so platoons in mass formation, giving a rookie

imitation of calisthenics under their platoon commanders.

Under the stimulus of eyes watching them, the First Platoon, Battery D, 14th Battalion, expended its last strength in a burst of passable quick step marching. When Lieutenant Landon had found an open space on the drill field, he halted the platoon on the edge of the field near it and fell the men out for another five minutes' rest. The opposite edge of the field was where these same men had sat on their duffle bags four days before, then in civilian clothes, waiting for their assignment to the battery. All that seemed part of another life, centuries ago.

At the end of the five minutes' rest Lieutenant Landon had Sergeant Butts form the platoon again, first having the men leave their tin hats in pairs where they had been sitting. This time the platoon was formed in four ranks, as at regular battery formations. By a series of facings, halts and forward marches, Lieutenant Landon got them across the field in front of a raised platform. Here he had them "open ranks." He got them in extended interval to the left, so they could just touch each other's fingertips with arms extended. Then, mounting the little platform with Sergeant Butts, he gave them five minutes of simple calisthenics, just arm exercises, bends and dips, with Butts leading them on the platform, the other cadres as usual circulating to correct their movements. Joe found the easy, smart exercises relaxing after the agony of the fast march.

The hour of "physical training" was now over, and the next hour was to be "dismounted drill," right here on the field. Lieutenant Landon marched the men back to get their tin hats, then turned each section over to its chief to perfect them in the positions and facings they had already learned, and to add "about face" and marching "by the right flank" and "by the left flank." In the last ten minutes before ten o'clock, the lieutenant formed the whole platoon and marched it about the field in platoon mass, to the approval of



On manoeuvre—moving a 105 mm. howitzer.

75 mm. tank buster—target expected.



Colonel Stark, the Regimental Commander, who appeared on H Street with his adjutant and stopped to watch Landon making his usual rapid progress.

At ten o'clock Landon had his platoon close ranks, manoeuvred it into two lines again and double timed it across the field, to the envy of all the other platoon commanders. Having halted the men to pick up their tin hats, he marched them down the ramp to G Street. They were headed straight for their battery street and now Joe thought he certainly was going to get a flop on his bunk. Instead, the lieutenant turned them left at the mess hall and marched them to the Recreation Hall, whither the other three platoons of Battery D were also headed. Arriving first, Landon halted his men at the door, fell them out and had them go up to the front of the large room, passing the two ping-pong and two pool tables and the rows of over three hundred chairs. In front of them was the curtained stage, with the square movie screen covering its center. At the left of the stage was the office of the chaplain, who came out to beam down at the men. As the First Platoon was occupying the front right corner of the hall, the other three platoons were entering and shuffling into their places.

When the whole battery was seated Lieutenant Landon, as the senior lieutenant, rose, looked at the door and suddenly called the room to attention. Captain Anderson walked down the aisle, carrying a brown book, mounted the stage and gave the room "at rest." First he complimented the four platoons on their exercises of the morning. Then he opened his book and read passages from the Articles of War, the law of the Army.

Through a sweet drowsiness that dragged at his eyelids Joe heard of the dire punishments, from guardhouse sentences to execution, that awaited those who were found guilty of the usual civilian felonies, of disobedience of orders, sleeping on post, absence with-

out leave, desertion, etc., etc. After reading the selected paragraphs and explaining them, Captain Anderson had a movie shown, portraying the gradual degeneration of a soldier who was smart enough to get away with a series of petty infractions; how finally, in the face of the enemy in the First World War, he persuaded some of his buddies to desert one night; how they were tracked down and caught by the military police and ended their days in front of a firing squad.

When the lights went on again, Captain Anderson smilingly explained that he knew that these threats and warnings were unnecessary for most of the men, that if they simply went ahead and did their jobs they wouldn't need even to remember that there was any such thing as the Articles of War. "A guardhouse lawyer," said the Captain, "is somebody who knows all of his rights when he runs foul of military law. That means he plans to run as close to the law as he can and still get away with it. I don't want any guardhouse lawyers in this battery."

Joe stood up unsteadily and painfully. With as many signs of stiffness as there were men, the platoon was getting to its feet, edging out into the aisle where the other platoons were crowding out in front of them.

The platoon formed outside in double line, and Sergeant Butts double timed it to barracks to get gas masks, then back at quick time to the drill field. There Lieutenant Landon was waiting and, when he had got them in open ranks, gave them a little lecture about the necessity of being quick with their gas masks, right from the beginning. There was always a chance that the Germans might send over a gas raid on our big camps. Then he instructed them in snapping on their masks at anybody's call of "Gas," in some one individual "testing for gas" when the danger seemed to be past, in removing their masks and stowing them back in their bags at the

command "All clear," which could come only from the senior officer or non-commissioned officer present. During the last half of this hour before lunch, the platoon was double timed to the Recreation Hall again where, after the other platoons had likewise assembled, they saw a short movie of gas drill, with a realistic presentation of a gas attack by enemy shells in the other war, the failure of one man to get his mask on in time, and the inability of the field hospital to save his life afterwards. The picture ended with a frightening display of gas burns and their persistence through the post-war years, gradually eating into the vital centers.

Then Sergeant Butts double timed them to the battery street, and just as he fell them out the noon siren and "soupy" sounded. Along with the rest, Joe ran into the barracks to throw his gas mask on his bunk, wash his hands, and limp up to the mess hall for a dinner of roast lamb with dressing and gravy, boiled potatoes, head lettuce with Russian dressing, bread, butter, marblecake and orangeade.

Groggy with dinner and fatigue, Joe walked slowly back to the barracks, fell on his bunk and instantly sank, not into dreams of Ledgeville but into absolute oblivion. Half an hour later it took none less than Corporal Storm to recall him to leaden consciousness, and Joe had real difficulty in inducing his once lithe muscles to raise his ton-heavy body. It was not until he found himself double timing along in the now familiar column of twos that he began fully to coordinate.

For the one-to-two o'clock period the platoon was bound for a region none of the new cycle had seen before. Up beyond Fifth Street there was a main two-way concrete highway, and beyond that was more of the Training Area, for the most part not occupied by buildings, but containing various installations for different aspects of training. The "M.P.'s" (military police) held up traffic on the highway as Lieutenant Landon double timed the platoon across.

On the other side they trotted between some tennis courts on the right and an obstacle course on the left, identified by its wide-mesh landing net draped over a lofty platform. Coming down to quick time, they turned right around the tennis courts and passed an athletic field with a cinder path on the left. They halted in front of a small open-air theatre with semi-circular tiers of seats. On the scrub-pine covered hill beyond two huge 155 millimeter rifles were being put into practice position.

Lieutenant Landon fell out the platoon in the theatre, then had the men pass him rapidly in single file, looking at him and saluting as they would any officer in the street. After they had passed him, the chiefs of section and corporals took those in hand who were clumsy at saluting. When this was over the lieutenant had the men sit down and gave them a ten minute talk on military courtesy to civilians. Then he double timed them back to the Rec Hall where he had them remove their hats and one by one come and report to him, impressing on them the rule that they must never salute with their hats off, but must stand at attention as usual when addressing an officer. The hour ended with a fifteen minute movie illustrating the elements of courtesy they had learned.

The next hour was also in the Rec Hall, a lecture by the platoon commander on the organization of the Army and the Field Artillery. The lecture was based on slides of charts thrown on the screen, and before the lights went out Lieutenant Landon said that he'd heard of tired soldiers taking naps during the first part of the lecture and never getting spoken to about it. Joe took advantage of this hint, and was absent in spirit during the explanation of the organization of the General Staff, an Army, a Corps, a Division, a Brigade, and all kinds of special troops. He woke up slowly with Al shaking him and whispering, "The lieutenant says to snap out of it and listen." On the screen was a chart under the caption, "Battalion Organization—105 mm. gun-howitzer."

"The 105 battalion," the lieutenant was saying, "consists of three firing batteries, an ammunition train, a supply train, a headquarters battery, a mess of 50-calibre machine guns and 37 millimeter guns for anti-aircraft, and a couple of little grasshopper planes for observation. Each of the three batteries in the battalion has four guns—howitzers is the right name for them. Corresponding to the four howitzers, each battery has four howitzer sections. Each section consists of a chief of section, usually a sergeant, a gun squad of seven cannoneers under a gunner corporal, a driver, and two or three extra cannoneers. It has a howitzer, with a truck or prime mover to haul it and carry the personnel of the section, the tools, and about fifty rounds of ammunition. Besides the four howitzer sections there is usually a fifth section called the ammunition section, with a chief of section, an ammunition squad under an ammunition corporal, and a couple of drivers with their two trucks to haul reserve ammunition for the whole battery.

"You can see that our batteries here are very much bigger than the batteries I've been talking about. That's because we're for training, not for combat. Each of our platoons is almost as big as a firing battery, and when we come to work the guns each platoon will act like a battery, the platoons taking turns on the guns. The aim here is to give everybody some training on the guns and at driving. It won't be till about the middle of the cycle that we'll pick out the best drivers to specialize in that. Your basic training is supposed to make you able to jump into any job in the Artillery. Afterwards, when you go to combat units, you'll get your advanced training, where you'll get to be expert at one particular job around some kind of gun or truck. Even after we've divided you up into drivers and cannoneers, still every member of the howitzer squads will have to learn to do everything around the piece, from the work of the gunner corporal to that of number seven cannoneer. The only



75 mm. tank buster—target assigned.

75 mm. tank buster—target found.



difference will be that when we come to firing the first time, we'll try to pick those who have done the best for the gunner and number one and number two cannoneer, because those are the most important posts."

The lieutenant had the lights turned on, leaving the organizational chart on the screen, and asked for questions. At five minutes of three he had the platoon form out on the street and double timed it back to the battery street. Under the schedule, the next hour was to be devoted to instruction in the care of equipment.

For the first fifteen minutes of the hour Lieutenant Landon sent the platoon down to the supply room to draw another batch of equipment. This went off quickly for the sixty-four men, because their sizes were already known, and the new piles were waiting for them on the supply room counter in alphabetical order.

After they returned to barracks Lieutenant Landon downstairs and Sergeant Butts upstairs gave the men a talk on the use and packing of their equipment, which was complete now but for the rifles and their appurtenances. After fifteen minutes of this Lieutenant Landon called the Third and Fourth Sections downstairs, and touched on a few points of special importance:

Next to the rifles they would get in a few days, the most important thing to keep clean was their mess kits even though they would use them only on bivouac. Generally, cleanliness of person and equipment was the first duty of a soldier. They could do their light laundry in the tubs in the latrine if they wanted to, or they could leave it at the supply room Tuesday mornings after reveille, where it would be picked up and returned by the Quartermaster Laundry, the cost to be taken out of their pay. They could get uniforms dry cleaned at the laundry. They would have to buy their own shoe polish and saddle soap at the P.X. Even on fatigue, shoes must be ready to shine by only having the dust rubbed off.

Lieutenant Landon closed the hour with a talk on property re-

sponsibility, again cautioning the men that the value of anything lost would be taken out of their pay.

"Just to cheer you up," he said, "you might know that Captain Anderson is financially responsible for everything except the personal equipment of the men. This includes all the barracks with everything they contain, the mess hall and kitchen with all the stoves, ice-boxes, furniture and utensils, the supply room with all unissued equipment, the orderly room with its typewriters and files, the motor sheds with all their tools, the four howitzers with their equipment, about two dozen trucks, a jeep and a couple of peeps. If anybody runs off with a howitzer some dark night, Cap'n Anderson will be payin' for it the rest of his life."

At four o'clock the whole battery assembled in the Rec Hall and Captain Anderson talked to them on "personal hygiene." First, he pointed out that the Army was more concerned about their health than about any other one thing in the war, because without that they couldn't even get ready to win the war. Health started with personal cleanliness. Every man must take a shower every day and brush his teeth at least twice a day. He told them in detail how to care for their feet, and to treat blisters with the iodine and adhesive tape which all the chiefs of section kept in barracks.

He outlined the medical service on the post, the three huge hospitals, the dental clinics, the regiment's dispensary just three doors from the orderly room on F Street. All medical, surgical and dental treatment of every kind was free. Sick call was at eight in the morning, the same time as drill call. If they had anything wrong with them they would report to the orderly room at sick call, and from there they would be sent to the dispensary. If they were really sick they would go on to one of the hospitals. If anybody felt off his feed at any time, he should report at once to the orderly room, without waiting for sick call.

The captain let the battery off at 4:30, half an hour early. For an

hour the showers of the barracks cascaded and steamed over relays of a dozen men at a time. After retreat formation at 5:30, everybody responded to "soupy" on the run. Supper was sausage in blankets, gravy, Spanish rice, string beans, raw vegetable salad, hot rolls, butter and cocoa.

Field position with camouflage net—155 mm. long.



VI

TUESDAY

AT DAWN TUESDAY the east was clear, the sky faintly pink over the roof of the barracks as the battery stood reveille. But during the ten minutes of the formation the usual gray pall closed over again and the twilight darkened. Lieutenant Landon was Battery Officer of the Day, which meant that he was the officer to stand reveille. When First Sergeant Smith had turned the battery over to him and taken his post, the lieutenant announced, among other things, that from now on the front rank in each section would be Howitzer Squad Number One, and the eight men in the rear rank would be Howitzer Squad Number Two.

At drill call Lieutenant Landon took the First Platoon out on another "little walk." Instead of leading them eastward out into the country, he took them westward over into the training area beyond the highway. When they were marching at quick time he frequently had the platoon "count cadence," which meant that they shouted four steps together twice—"One—two—three—four—One—two—three—four"—at the top of their united lungs. Joe loved to do this. It made him feel important, shouting his own commands. It also made him feel comfortably part of the gang around him, whom he was beginning to know. In psychological terms, it was at once developing his individual self-reliance and accustoming him to act as part of a larger unit. Lieutenant Landon kept them mostly at double time, trotting along the by-roads through the sparse pine woods of that western part of the training area.

At twenty minutes past eight Lieutenant Landon had them back

on the drill field, where he gave them stiff calisthenics for the rest of the hour, having them "count cadence" for some of the exercises. The other thirty-one platoons of the 14th and 15th Battalions of the Fifth Regiment were likewise having calisthenics on the huge field, and most of them were counting cadence every now and then. The sharp rhythmed shouts and the snappy exercises all over the field gave the same feeling of energetic power that had impressed the rookies when they were straggling in less than a week ago.

Between three minutes of nine and nine o'clock the drill field was cleared. Sergeant Butts double timed the First Platoon, Battery D, to barracks, where he fell it out for five minutes' respite. The next period on the schedule was going to be a two hour one. Joe Boom was excited. Ever since the week's schedule was posted on Sunday, he had had his eye on this period on Tuesday. The morning's division of sections into howitzer squads had confirmed his hopes.

Sergeant Butts had the platoon re-form in column of twos, as for the morning walk, and marched it down across F Street and into the gun park. While marching at attention Joe strained his eyes to the right. There were their four howitzers, still under their tarpaulins, the muzzles pointing away from the track where the platoon was marching. When they had passed the guns Sergeant Butts countermarched the platoon and returned in the opposite direction. "Chiefs of Section, take charge of your sections," he commanded.

The First Section continued till it was opposite the right of the four howitzers. "First Section, halt. Left face," commanded Sergeant Edwards. Joe was presently to learn that the right of the four guns of a battery was always called Number One, the next Number Two, the next Number Three, and the leftmost gun of the battery Number Four. The number of the section always corresponded with the

gun it served. That was why Sergeant Butts had countermarched the platoon, to get the sections in the proper order.

Lieutenant Landon was standing out in front of the four howitzers his platoon was going to train on, they being about twenty yards apart, so the whole front of the battery was about sixty yards. When the sections were all halted behind the trails of their guns, the lieutenant shouted, "At ease."

"Now, men," said Landon, "we're goin' to begin lookin' over the big babies. The first thing I want to tell you is that the guns will never be fired here. When we come to firin' we go out on the range that's five or ten miles away. You'll never see a round of live ammunition in this gun park. But just so as to take no chances, the first thing you do to a howitzer after you get the cover off is to open the breech and squint up the tube to be sure it's empty.

"The second thing I want to tell you all is that these howitzers are dangerous babies in more ways than in firin'. They weigh about three tons apiece and they're solid steel everywhere. If you bump into one it isn't the howitzer that's goin' to get hurt. Special to remember is that if a wheel rolls over your foot or the trail drops on it you just ain't goin' to have any more foot. You'll find that what I'm tellin' you makes sense after you begin whippin' them around, like you'll learn to do, as if they were tin toys. Now I'll ask the section chiefs to take over and spend about twenty minutes tellin' you a few things about the 105 howitzers. After that you'll have an hour and a half to learn the posts of the cannoneers unlimbered. 'Unlimbered' means the way the howitzers are now, just sittin' by themselves unattached to the trucks or prime movers. From this condition they can either be limbered up to travel or put into action. But we won't do either of these things today. We'll just take it easy and kind of learn the front end of the gun from the back. Okay, Chiefs of Section, take over."

"All right, First Section," said Sergeant Edwards, "you can break ranks and come up closer. To begin with, Corporal Storm and I will take off the tarpaulin."

While they did this the sergeant explained the way they reversed it in removing it so that what had been the outside lay on the ground. This was so when they put it back there wouldn't be any dirt on the inside to get into the mechanism of the howitzer.

"Next," said the sergeant, "Corporal Storm and I will take off the howitzer cover." Together they unstrapped the big canvas cover that contained the whole tube, removed it, folded it, and laid it to the right. Joe got his first close-up view of a light field piece. It was low and squatty on its two relatively small wheels with their ponderous, brand new, pneumatic rubber tires. From the axle inside the wheels, the two trails tapered back to join in one a dozen feet behind. From where the section was standing behind the trail, the muzzle of the gun was hidden by the shield that was to protect the cannoneers serving the piece. Back of the shield on each side of the breech there were miscellaneous small boxes and gadgets hidden under little canvas covers. Joe knew these were the mysterious instruments for aiming. Everything about the piece was painted olive drab except the big clean gray tires and the shiny steel breech.

"Now," said Sergeant Edwards, "before going any farther we'll open the breech and look through the bore, to be sure it's empty." He swung back the breech handle and looked up through the bore. "Come on up, all of you," he said, "and take a peek."

The sixteen men of the section crowded up and each leaned down to look through the glistening bore.

"Now stand back of the trail again," said the sergeant. Informally he put a foot up on the trail and leaned on his knee. "You've all heard," he went on, "that this is the 105 howitzer. 105 is the measure of the diameter of the bore, 105 millimeters or a little over four inches. There are two kinds of artillery pieces, rifles—sometimes



Tenting tonight—tactical bivouac, doubling shelter tents.

To the range—105 mm.



called simply 'guns'—and howitzers. The difference between rifles and howitzers is in the length of the tube. If this were a rifle, the tube would be about a third again as long, and it would shoot farther. But in order to do that it would have to be a lot heavier all around. The longer tube would weigh more, and because it would require a stronger propelling charge, the whole piece would have to be stronger and heavier everywhere.

"This is what is called a light field piece, such as exists in every army. The object is to design a piece that will throw the heaviest possible shell the greatest possible distance and yet be able to be manoeuvred fast. These guns have to be managed by hand. They are the piece for fast action, the same as the rifle for small arms. They are the real guts of the Artillery. They have replaced the old 75 millimeter rifle in our Army. The 75 was a rifle, with a long tube. It weighed a little less than this and could shoot about 1,000 yards farther. But in order to do that it threw a shell that weighed only about half what the 105 shell does, being only about three inches in diameter. This is conceded to be the most effective light field piece in any army today. It has a range of 12,150 yards, or about seven miles. Light artillery is rarely called on to fire over 8,000 yards.

"Besides being about the right compromise between weight of gun and weight of projectile, this has over the old 75's the advantage of all howitzers of being able to shoot over hills at a high angle of fire. As a matter of fact, this piece is designed to combine the advantages both of the rifle and the howitzer. It is long for a howitzer, but shorter than a rifle. Technically, it is called a gun-howitzer. It does the work of either one. The main thing to know about it now is that there isn't a light field piece in the world that can slug it out with this one, round for round or second for second. It's a little slower to fire than the old 75, but fifteen of these 105 rounds got off in a minute will do three times the damage that twenty rounds of 75 ammunition would do fired in the same time.

Incidentally, this is a more accurate gun than the 75. With this piece you can pick out a pill box on the map and hit it first shot if you figure your firing data right.

"Now about the main parts of the piece. This, as I told you, is called the tube, the same as the barrel of any gun. This is the breech, where you load the shell. Inside here is the breech block, which you slide open and shut with this lever. The block is a kind of wedge that drives the round in and seats it. It's about two inches thick of steel, because it has to stand the whole force of firing. There's an ejector inside that snaps out the empty shell when the breech block is opened. Here on the right side is the trigger that fires the gun. It is done with a lanyard, a tough line about eight feet long. Number One Cannoneer fires the piece from about out here, like this." The sergeant illustrated in pantomime.

"Now come round to the side here so you can see both in front and behind the shield. You notice that the tube rests on another cylinder. This is called the cradle. If you'll look in close here, you'll see that the tube rests on a track on top of the cradle, with flanges to hold it in place. One of the most important things about any artillery piece is the recoil mechanism. There has to be something to help take up the shock of firing, else the gun might turn over, or run back a few rods, or even burst. When the howitzer is fired the tube rides all the way back on this track, the full length of the cradle, so that only a little of the tube is still in front of the shield. The breech rides way back to here." Sergeant Edwards walked back of the piece and indicated the limit of recoil of the tube, about a yard and a half back of the present position of the breech.

"When the tube slides back on the track on the cradle, there has to be something more than friction to slow it up. Else the recoil would be just as violent as if there weren't any cradle. That's what the recoil mechanism is for. Most of it is inside the cradle. It's a long cylinder with a piston rod in it, just like the piston rod in a

steam engine, only instead of driving anything it works the opposite way and slows up the recoil. The piston rod is attached to this block of steel known as the recoil lug coming down from the breech of the howitzer. From there the rod runs up through the recoil cylinder to the piston itself which is at the front end of the recoil cylinder. The cylinder is filled with a kind of fluid whose composition is a secret, except that it's no secret that it has glycerine in it. As the piston is drawn back by the force of recoil this fluid, which is clastic, compresses like a cushion. Also there are slots around the piston head which let some of it flow through into the front of the recoil cylinder at a carefully calculated rate. The result is that the howitzer recoils at just the right rate, so the force of firing is distributed through a little time instead of coming all at once. The whole operation of recoil and counter-recoil into battery takes about a second. By the time Number Two Cannoneer is there with the next round, Number One Cannoneer has the breech open and ready to take it. Because of the recoil mechanism, the laying of the gun is hardly thrown off at all. In less than three seconds the Gunner and Number One Cannoneer can have it laid again. Later we'll take the recoil mechanism apart and you can see just how it works. The main idea to get now is just that the tube drives back fast on the cradle when it's fired, so when you're drilling on it you want to remember always to keep clear of the region back of the breech. Anybody want to ask any questions?"

"You say she shoot seven mile?" asked Louis Brilliati.

"Usually they don't fire over about eight or nine thousand yards," said the sergeant, "about five or six miles. In the Artillery you always speak of thousands of yards, never miles. A mile is 1,760 yards."

"Are you going to talk about the split trail today, Sergeant?" asked Jack Boulter, partly to help him out and partly to air his knowledge.

"Now everybody get back of the trail again," said Sergeant

Edwards. "Corporal Storm, if you'll tend to the left trail lock pin and the left axle lock and the cradle lock I'll take care of the right ones and the travelling lock." For a moment the two cadres made mysterious passes around the axle under the gun.

"Now there are two more things about recoil that have to do with the design of this howitzer," he said. "In the first place, any field gun always has some limit to the angle it can fire to right or left without shifting its position." He turned the deflection wheel and the muzzle of the gun swung to the right about 20 degrees. "Now, can you see what would happen if we fired the piece in this condition?"

"She'd roll over sideways," said Jack Boulter.

"That's right. With the gun pointed so far to the side the trail, as you see it now, going straight back, wouldn't take up much of the shock of recoil. The shock would come in at too wide an angle, too close to sideways. The right wheel here would be lifted off the ground, and the whole piece might go over. The same if it was laid too far to the left. It would be liable to tip over to the right. To prevent that, in order to use the maximum deflection without having to take the time to move the piece around, we need to have some kind of a buttress shooting off here at an angle. Come here, any two volunteers, and give Corporal Storm and me a hand spreading the trail."

Joe jumped forward, and Jack Boulter was on his heels. "Easy now, boys," said Sergeant Edwards. "Don't get your feet under the trail spades. All right, spread." With a cadre on each section of the trail they spread its two sections to right and left, Joe and the corporal carrying the left trail out till it stopped parallel to and just outside the tube where Sergeant Edwards had left it traversed to the right limit.

"Thank you, men," said the sergeant. "Now you can see that there is something out there to take up some of the shock of

recoil. Now we can fire the gun to the limit of its traverse either way and it won't capsize.

"Now there is one more advantage in the split trail," Sergeant Edwards went on. "Does anybody know what it is?"

"High angle fire," said Boulter.

"Right. The important thing about a howitzer is that it can shoot almost straight up in the air. That means that it can shoot over obstacles and hit a target close behind them. A rifle, having a greater muzzle velocity, can't do that. A rifle or gun has what you call a flat trajectory. The toughest problem about the old 75's, and about the light field pieces in every other army today, is to get them located so they can hit their targets. It doesn't take much of a hill to make a target safe against the fire of a rifle. In order to get into position to hit something with its flat trajectory, a battery of rifles has to come pretty much out in the open, which makes it easy picking for the enemy. But a howitzer can use a weak propelling charge when necessary, so it can move close in behind a hill and lob shells over it with a high trajectory. In this way it both gets better cover itself and can reach targets that a rifle couldn't. The commander of a battery of 105's doesn't have to worry much about obstacles between him and the enemy. They usually say of this gun that you can drop the trail anywhere and start shooting."

The sergeant traversed the gun back to center. "Now for high angle fire we naturally have to elevate the muzzle, which means that the breech has to go down." He turned the elevation wheel, lifting the muzzle up to about sixty degrees and depressing the breech. "You can see that if there were a solid, single trail here you couldn't point the gun anywhere near as high. The trail would be in the way of the breech when it recoiled. This gun can point higher than any light field piece in the world. In fact, it can be used for anti-aircraft. It's really an all-purpose cannon.



Command post with foxholes.

Plotting range.



"Incidentally, can anybody see the one trouble in firing as straight up as this?"

Joe had a brain throb. "This recoil," he said, "she'd drive into the ground."

"Right," said Sergeant Edwards. "That's why, as soon as you're in position, you dig a hole under the breech if you have time. Of course, you don't often have to fire at maximum elevation, but it's a good thing to dig a hole anyway, because an airplane strafing you won't wait for you to dig it.

"Now," said Sergeant Edwards, "we're going to try a little gun drill. Gun drill is different from dismounted drill in that every man has a different job. In this basic training course every man must learn to do the job of every one of the cannoneers. For that reason we will change jobs frequently—'change posts' they call it. Today we'll only have time to learn what the posts are. The second squad, the men who were in the rear rank, will fall out along the side while the first squad drills. My commands now will be only for the first squad.

"All right—howitzer squad, rear of your piece, *fall in.*" He showed Achs where to take position to the rear of the right trail, and the rest of the men lined up on his left, in order—Adamic, Addelheim, Ainsworth, Boom—who had replaced Alum in the front rank—Amkovitch, Arnberg and Atski.

"All right, men," snapped Sergeant Edwards, "dress it up. Let's see those left elbows go up and those heads turn to the right to get the dress, and when you're dressed snap to the front. At ease. Now, once more, *attenshun.* That's better. Your position now is 'in rear of the piece.' You are a howitzer squad of eight men. The man on the right is the Gunner. Next to him is Number One Cannoneer, then Number Two Cannoneer, then Number Three, and so forth to Seven. The next command is going to be 'count off.' In an organized firing battery, the Gunner doesn't count off, but for a

while here we'll have the gunner count off with the rest, just to make sure everybody knows his job. When I give the command 'count off' I want to hear you shout your posts down the line, and the faster the better. 'Shout out your number loud and strong,' as the song says. The count should snap out like this—Gunner-one-two-three-four-five-six-seven. Now then, on your toes—*Count off.*"

"The next command," said the sergeant, "is going to be, 'Change posts, march.' When you change posts in this position, the Gunner runs round behind the line and takes the place of Number Seven Cannoneer. Everybody else takes one sidestep to the right, Number One becoming the Gunner, Number Two becoming Number One, etc. All right, Change posts, *harch.*"

The sergeant kept them changing posts in line and counting off in the new position until he had got the line back in its original order.

"Now," he said, "you're going to take your posts at the howitzer unlimbered. Count off."

"Gunner-one-two-three-four-five-six-seven."

"Very good. At ease. I'm going to show you your posts one at a time. Afterwards you can do it all together. We're to take it easy today. Just walk to your posts. Later you'll learn that gun drill is the snappiest and fastest drill in the Army. But no speed today, remember.

"When I give the command 'Cannoneers Posts,' the Gunner takes post just outside the rear of the left wheel, facing the front and standing at attention. All right, Achs, take your post. It's right here. Number One takes post just outside the rear of the right wheel, facing the front and standing at attention. Here you are, Adamic. When the howitzer is in action, the Gunner and Number One do the laying of the piece, using the instruments that you'll learn about later.

"The post of Number Two is just inside the left trail about a yard from the end of it, facing the front and standing at attention.

Number Two takes the round of ammunition from Number Four and loads the howitzer with it. All right, Addelheim, here is your post.

"The post of Number Three is just outside the left trail, opposite Number Two. The job of Number Three is to set the fuse on the round of ammunition. All right, Ainsworth. Here you are.

"The post of Number Four is just outside the end of the left trail. His job is to carry the round to Number Three to set the fuse, then pass it across the trail to Number Two. Here you are, Boom.

"Numbers Five and Six are just to the left of Number Four, in line with him. Their job is to fix the powder charge for the round. Come on, Amkovitch and Arnberg, take your posts.

"Number Seven helps Numbers Five and Six and brings the next round of ammunition. His post is just behind Number Five. Here you are, Atski.

"Now you're all at the proper posts of the numbers you have now. On your toes. *Count off.*" Then the sergeant gave them "at ease," told them to look around and see all the posts. This over, he called them to attention again. "Remember," he said, "do everything at a walk today. On your toes, now. Rear of your piece, *fall in.* What's the matter, Addelheim? Is everybody wrong but you?"

When Addelheim had joined the line in its original position the Sergeant gave them "count off" again, then "change posts," "count off" in the new numbering, then "cannoneers posts." This had to be repeated twice. Then they changed posts again and went to their posts in the new order. When everybody had taken every post, the sergeant fell out the first squad and put the second squad through the same paces.

The sergeant looked at his wrist watch. "Well, we have time to try snapping it up a little. When you know the drill you always take your posts at a run. We'll do that now. The chief thing is not to get in each other's way and trip each other." He explained how Number One must hold back to let the Gunner run in front of him. The

rest would dash immediately to their posts. "All right, men, now let's see you hop. Cannoneers posts."

In the dash the men crowded each other and stepped on each other's heels, with small suggestion of the precision with which they would hop round the guns after a few weeks. But they did find their posts after a fashion. "In rear of your piece, *fall in*." Sergeant Edwards went through the whole routine of changing posts again.

By the time the two hours were up everybody in both squads had mastered the rudiments of gun drill, the business of counting off and taking posts. The drill ended with Lieutenant Landon calling the whole battery to attention, giving all the first squads "rear of the piece, *fall in*," "count off" and "cannoneers posts." Then he did the same for the second squads.

At eleven o'clock Lieutenant Landon turned the sections back to the section chiefs and told them to put the howitzers to bed. Sergeant Edwards gave the men "at rest," while with two new volunteers he and Corporal Storm put the trails back together and put on the howitzer cover and tarpaulin. Sergeant Butts double timed the platoon up to Rec Hall where the whole battery was gathering.

The lecture this time was on Protection of Military Information. Captain Anderson gave the men positive orders not to discuss any military subject with any civilians or with soldiers they didn't know. Most of the hour was given up to movies, showing how a careless word to a stranger about a troop movement had caused the torpedoing of a transport; how another had caused the blowing up of a munitions factory.

Altogether Tuesday was a banner day for the First Platoon, with the beginning of elementary instruction in real artillery functions. As two hours of the morning had been devoted to cannoneer instruction, the first two hours of the afternoon were given over to motor instruction. At a quarter of one Sergeant Butts formed the

platoon in the battery street, and the chiefs of the first two sections distributed to their men cards headed "Aptitude Test for Drivers." Sergeant Butts marched the platoon down to F Street, led it to the left and double timed it on past the gun park to the motor park, where he halted it at the motor classroom and led the men inside. It was a one-story building with about a hundred seats facing a raised platform with tables of tools, and on the wall back of the tables a movie screen and blackboards. Behind the seats was the chassis of a truck painted yellow, with the various working parts in different gay colors.

Lieutenant Spellman, the Battery Motor Officer and commander of the Second Platoon, then gave a five minute talk on accident prevention as the first requisite in driving in the Artillery. Accidents must be prevented, not only for the protection of the men and materiel, but for the proper carrying out of military operations. Accidents resulted from either of two causes: from bad driving, or from failure to inspect and care for the trucks. After this introduction, Lieutenant Spellman had the lights put out, and showed ten minutes of films portraying motor accidents to army trucks: a fatal collision, a brake catching fire from grease leaking out of the axle, a truck hauling a 105 stalling because the driver had not inspected the wiring before taking it out. As a result of each of these accidents, the battalion commander was later summoned by the general to explain why he failed to get his battalion in position in time to carry out his mission.

Immediately following this demonstration there was a film with a recorded lecture on extinguishing fire, with G.I. fire extinguishers, or with sand or dirt if the G.I. fire extinguisher was not present. At the close of this lecture the platoon was marched out to the park and each of its eight squads assigned to one of eight old trucks that were lined up for demonstration purposes. One after another, the men were put in the driver's seat, when a fire was ingeniously started

by a cadre, on a brake drum, in the carbureter, in the pan. Sometimes the man was able to extinguish it quickly with the extinguisher on the foot board. Sometimes the extinguisher, having been changed by a cadre, failed to operate or was empty, and the man had to put out the fire with dirt. The behavior of each man in this test was noted on his aptitude card by Sergeant Edwards.

Then Sergeant Edwards took the First Section to the battalion motor repair shop that had been cleared for the aptitude test. Both truck doors were closed and the big windowless room had its lights on. Eight illuminated eye charts were alternately on opposite walls, with a chair and an eye examiner's apparatus out in the center of the room facing each of them. At each set of apparatus a soldier of the Medical Corps stood waiting. Squad number one of the First Section was directed to the chairs, while squad number two disappeared through a door at one end of the building. The lights were put out, and for fifteen minutes Joe and the rest were put through a severe eye test, in which he later found he failed to meet the severe requirement for a qualified driver. Indeed, only about half the boys passed the eye test this time. Pete Alum was disqualified because he couldn't read. All Army drivers must be literate.

At the end of fifteen minutes the eight men of squad number two came out of the door at the end of the building and were distributed for their test, squad number one being taken into the battalion stock room at the end of the building, which had been partially cleared for other tests. Beside this large stock room, each battery in the battalion had a small stock room of its own.

Achs, Adamic, Addelheim and Ainsworth were set to adjusting objects that slid on wires as they pulled strings, a string to each finger, the problem being to get the five objects in line in a certain time. Meanwhile Boom, Amkovitch, Arnberg and Atski were armed with sticks with which they were supposed to pin against the wall small

boards that were released from above at unexpected moments. Sometimes there would be half a minute before a board was dropped. Then one would follow another quickly. Joe found himself perspiring with concentration, but he got his board every time. When everybody had been through these tests, they were taken outside to do a simple feat of balancing, being required to walk about a hundred feet along the top of the low 2 x 4 barrier around the motor park.

The eye and other aptitude tests took half an hour, and another half hour remained before the end of the motor instruction period. Sergeant Edwards took the section back to the motor classroom where they gathered round the truck chassis for instruction under Motor Sergeant Davier, the Second Section that had been there before going into the Motor Repair Shop for the aptitude tests. The garishly painted chassis had no motor. It was intended for instruction not in the care of motors—that was for the specialized mechanics in the Repair Shop—but in the parts for whose maintenance the drivers would be responsible, the parts each driver must inspect periodically, most of them daily. The gasoline line, from tank through carburetor, was painted white; the ignition lines, silver; all grease and oil fittings were red; the shock absorbers, blue. The motor sergeant traced each line separately, indicating the parts to be inspected each time a truck was taken out. He had each man count all the oil and grease fittings, in order to fix the number of them in his mind. Al Ainsworth excelled them all in the thoroughness of his understanding. At the end of the session Sergeant Edwards asked Ainsworth for his card and made a special notation on it.

At three o'clock, following the motor instruction, Sergeant Butts formed the platoon and marched it back to the battery street, fell it out for five minutes, re-formed it and double timed up to the drill field where Lieutenant Landon was waiting. For an hour they did dismounted drill, first by sections, then as a whole platoon. On this



"Number One, Fire!" A 105 howitzer squad: Kneeling are Number 6, Number 5, Number 4, Number 3, Number 2; arms folded, gunner; standing, Number 1, Number 7, and chief of section.

day their knowledge of facings and steps was completed. For the last fifteen minutes of the hour Lieutenant Landon drilled the platoon together in column of double sections, which was parade formation. When he gave them "at ease" at the end of the drill he said, "Men, we're doin' fine. All we need now is to do it some more, and by a week from now we'll be able to do platoon column right and column left without walkin' up each other's backs. Okay, Sergeant Butts, take over."

The sergeant marched the platoon over to the Rec Hall for the last period of the day, a double lecture on Sex Hygiene. Captain Anderson was in charge. He talked for five minutes about how it wasn't the business of the Army to dictate anybody's private morals, but that it was the business of the Army to see to everybody's health, to be sure they all knew the risks they were running if they played with women, and the way to prevent the consequences. Chaplain MacFarland then talked in a good-fellow way for twenty minutes on the moral aspects of the question, telling of the unhappiness they would cause, both to themselves and to others, if they lacked self-discipline. For the next twenty minutes the Regimental Surgeon gave a matter of fact and terrifying explanation of the consequences of syphilis and gonorrhea, both to the man himself in later life and to his children. This talk was illustrated with still lantern slides, colored, which left impressions that no one of the soldiers ever forgot.

Captain Anderson dismissed the battery direct from the Rec Hall, and Joe Boom and Al Ainsworth walked together to the P.X. to get a beer. The place was a military version of an old country general store, the shelves, counters and cases loaded with everything soldiers could need. It was not jammed now as they would see it later, because the four batteries of the 14th Battalion, being in their two weeks' quarantine, were the only outfits allowed in during

TUESDAY

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this period. Instead of the usual sentry, Battery D's clerk, Corporal Scroggins, stood at the door.

The beer bar was a big alcove off the main room. Joe and Al got their beers and stood, each with a foot on the rail, Joe a good four inches taller than Al till he leaned down over the bar. "You showed up okay on that truck business," he said.

"I like it," said Al.

"I like these howitzers better," said Joe.

Fifteen minutes later, in a comfortable glow of combined beer and fatigue, they walked back to barracks to take a shower before retreat. On each bunk two pamphlets awaited its occupant. One was "Drill Regulations for the 105 mm. Howitzer." The other was "Motor Manual for 1½, 2½ and 4 Ton Trucks." At retreat Sergeant Butts told the platoon that they'd got to learn "everything in them books, and they'd better start tonight."

When they came back from supper a short list of qualified drivers was posted on the bulletin board. Al Ainsworth was the only one from the First Section, First Platoon.

VII

WEDNESDAY

WEDNESDAY MORNING WAS damp and chilly. At reveille Lieutenant Spellman, who was Battery Officer of the Day, instructed the battery to wear raincoats at drill call. The First Platoon fell in eagerly at eight o'clock, most of the boys actually looking forward to the double timing they knew Lieutenant Landon would give them. They got a little more than they bargained for. He speed marched them—half double time and half extended quick time—for ten minutes round the area across the highway, then halted them at the obstacle course.

When he had given them "at ease," Lieutenant Landon delivered a little lecture. "Remember," he said, "this ain't a race. I've never seen two men try to race on an obstacle course but what somebody got banged up. This course here is mighty soft, but you might as well get the habit of taking it easy from the beginning. The object ain't to get there in ten seconds. The object is just to get there, not one at a time but all together, so you're good for something when you get through. The idea is that this is attacking an enemy position. We're going to send you through four at a time. If one man gets hung up on the scaling wall, help him over. If somebody is doing too bad, so as to hold up the show, we'll haul him out. Just to start with, I want four volunteers to go through for demonstration, one obstacle at a time. We'll stop and talk about each one, and maybe go back and do some of them over. All right, let's see four volunteers jump up here out of ranks."

Joe Boom and Jack Boulter kept up their reputation for volun-

teering, and there were two or three from each of the other sections. "Okay," said Lieutenant Landon, "we'll take the four on the right." This included Joe and Jack. "Take off your raincoats, boys. This time you can do it without your tin hats too. Later, you know, we have to run it with full equipment."

The four volunteers tossed their raincoats and tin hats in a pile to one side. "All right, boys. The first two obstacles are easy. The first one is what they call a landing net. It's what they use to get down from ships or to get onto ships in a hurry. But it's also a little device they use to get over walls. It's the job of the engineers to get it hooked over the top. Then the attacking force goes up it. The platform it's strung over here is about twenty feet high. You'll find it's easier going up than down. When you're on top, be sure you have hold of the net with your hands before you start down with your feet. Today, I don't want to see anybody going down the net any way but backwards.

"The second obstacle is just a little hurdle. It has a level take-off, so jump over it any way you're o' mind to. Now get this. When you've got over the first two obstacles, stop, because I want to tell the platoon about the next two, which are a little tougher. All right, you four. On your marks. Go."

Joe, Jack, Fred Dart and another from the Second Section jogged to the landing net and scrambled up to the twenty foot high platform without mishap. As Joe turned to go down backwards, he saw the faces of the platoon looking up at him from seemingly miles below. He was ashamed to feel the twinge of the panic he had felt the few times in his life when he had had to get on a ladder from a high roof. He grabbed two of the ropes firmly and groped down over the edge with a foot till he got it in one of the meshes. Unknown to him, four cadres were standing at the bottom, ready to catch each of the demonstrators if he fell. Joe got down all right, but Fred Dart in his eagerness lost a rung just after starting, slid

and hung by his hands, wriggling till he got his feet in a mesh again. Jack Boulter took it cautiously and was the last one down. First obstacle—no casualties.

When Jack got down the other three were already running for the three-foot-high hurdle that was the second obstacle. Joe went over it in passable hurdle form, and two of the others jumped over it easily, stopping when the lieutenant ran out in front of them. Jack, pressing a little to catch up, slipped on the take-off, hit the top bar and rolled over the obstacle in a heap on the ground. When he jumped up one leg let him down. Then he stood up and walked round in little circles, trying to smile off his expression of pain. Sergeants Edwards and Lacey ran to him, picked him up under the shoulders, set him down at one side, examined his leg and took off one legging and shoe. He had wrenched an ankle. Second obstacle—one casualty. Unknown to the platoon, Captain Anderson was watching them from the road, standing beside one of the battery peeps. The sergeants carried Jack Boulter over in a two-man seat, and Captain Anderson took him off to the dispensary to get tied up and enjoy a few days of "goldbricking" in quarters.

"All right, boys," called Lieutenant Landon, "who was the next volunteer from the right?" A little hesitantly, a man from the Third Section came forward. "Now, men," said the lieutenant, "the next two obstacles are trickier. That's a ten-foot wall to scale, with ropes hangin' down to help you. The idea is to depend entirely on the rope that you grab. When you've got a firm hold of it, jump and swing your feet against the wall so you're hangin' almost straight out. Then just walk up the wall, keepin' yourself in balance by goin' up the rope hand over hand, till you can hook a leg over the top. Don't let go of the rope till you've got one leg and the hand on the same side over the top. Then just scramble over, like gettin' over a fence when you were a kid, hang down by your hands on the other side, give a little kick out to keep from scraping on the wall,

and drop. It isn't much of a drop if you hang full length first. There isn't any danger going up, so long as you keep hold of the rope. This way—"

Without taking off his tin hat or his raincoat he walked to the wall, grabbed one of the half dozen ropes hanging from it and walked slowly up, talking all the time. "You see, the idea is just to keep your feet up a little ahead of you all the time so they won't slip. Just take a step up, then a hand-over-hand, then another step. When you've got up here, throw a leg over, then an arm, still holdin' to the rope with the other hand. When you've got your weight over the top, drop the rope. Come round the other side and watch. Okay. Just let yourself down easy. Give a little kick out and—there you are."

He dropped to the ground and walked round to the other side again, without having even ruffled his raincoat. "All right, volunteers," he said. "Let's try it. Line up."

All four of the demonstrators found that the toughest spot was when they had got one leg over the top and the other knee against the wall. The impulse was to let go the rope and grab with both hands. Fred Dart did this and got away with it. Joe paused and considered, then hitched himself up the rest of the rope with short hand-over-hand grabs till he had his left hand firmly over the top of the wall. The rest was easy. During this ascent four cadres, as before, stood under the climbers, ready to catch them if they let go. When all were safely down the other side Lieutenant Landon criticized the way Dart had done it as exemplifying a fine way to fall back and break your neck.

"Now, the next obstacle," the lieutenant went on, "looks easy, and just for that reason it's about the trickiest in the course. It's an ordinary section of infantry trench, with a firing step in it, like a little trench inside a big one. The whole distance across the trench isn't but about seven feet which is no kind of jump for a man

running. But what'll throw you is the take-off. The ground rises a little here, just enough to kill your speed. Then, just on the edge of the trench it drops so it won't give you any rise. And besides it's just soft sand and will slide with you. One of the first things we have to learn is not to go steamin' up to enemy trenches and jump over them, even if we know they're empty. They don't make trenches to be easy broad jumps for the attacking force. Besides they're liable to be mined and you have to watch every step. So just get the habit from the start of taking it easy over trenches. I've never seen but one man disobey orders and try to jump this one, and he slipped and fell and broke his leg across the firing step. Just step down onto the firing step like old ladies, step across the inside trench and climb out on the other side. All right, you four. On your marks. Get set. Go."

As directed, the four demonstrators climbed down, through and up out of the trench gingerly, as if it were full of mines. As they came up, Lieutenant Landon stopped them.

"Now, this next mess of posts with plain wire tangled all over it is supposed to represent enemy barbed wire after our artillery has done a little job on it. It's levelled down so you can walk through it, but it's straggled around all over the place. This isn't barbed wire, of course, and it won't hurt you. But it's supposed to be, and if we see anybody take a spill in it, we're goin' to call him a casualty and send him to the rear. What you can hurt yourself on here is the posy bed of posts. You can see they're stuck all over and don't average over two feet apart. If you try crashin' through them you're goin' to do anything from barkin' your shins to breakin' a leg. The way to go through is at a sort of fast walk, just slow enough so you can stop any time with a foot in the air. Like this—"

The lieutenant walked rapidly through the tangle, stepping sometimes forward, sometimes sideways and never touching a wire or a post. "When you've got through this," he went on, "go right



"Cease firing."

on through the next obstacle which don't need any explainin'. Just climb one of those four pine trees with cleats on them, swing along the horizontal bar to the next tree and climb down. When you've done that, stop again. Okay. On your marks. Get set. Go."

Joe was always sure-footed, and he picked his way easily through the "enemy wire" without mishap. But here again Fred Dart was too eager, took a false step too late to draw back, got tangled, fell and skinned his knee on a post. Sergeant Lacey ordered him out, rolled up his pants to look at his knee, and told Corporal Pilsener to put a pad on it.

Meanwhile Joe and the other two were working their ways across the horizontal bars. Joe knew his way around the horizontal bars at the Y, and got across in no time.

"The next obstacle is kind of a fake," said the lieutenant, "because it won't do a thing to you if you miss it. That wide trench is supposed to be a ragin' stream about a million feet deep, so you cain't wade it and, like always when the footin' is bad, you cain't jump it. So the engineers have rigged up those long ropes from overhangin' trees so you can swing over it. This has a knack to it. You pull the big rope in by the little rope lyin' on the bank. Then you come way back with it before you jump up into the air and let her swing you. Pull your feet up to make yourself as much of a ball as you can. When you're almost at the end of the swing on the other side, just let go and hope for the best. The joke about this one is that even if you don't get across you'll just drop three or four feet in the sand and it won't hurt you. But it's a good thing to learn how to do it proper. This is about the way it goes." He drew in one of the big ropes that hung down from thirty or forty feet above, ran back with it, jumped off the ground, drew his legs up, swung a dozen feet across the pit and dropped. "I guess the most important thing to remember," he said, "is to drop at the right time. If you wait a second too late you'll be on your way back out over

the stream and the crocodiles'll get you. Okay, men. On your marks. Get set. Let 'er go."

Joe and the other man of the original four were both casualties on this obstacle. The other man of the original set didn't grab the rope high enough and scraped his backside on the bank swinging out, let go and rolled down into the pit. Joe got across, but did just what the lieutenant had cautioned against, held on too long and was swung back into the "stream" alongside his colleague. Lieutenant Landon declared them both dead.

"All right, boys," he said to the now completely replaced quartet. "You can go on through the next five obstacles catch as catch can, and we'll stop you before the last one. The only hard one is the wall to scale just in front of you. Here you haven't any rope to help you, but the wall's only eight feet high, so anybody big enough to get in the Army can jump and catch the top. After that there's about a million ways to do it right and a million ways to do it wrong. Some fellas can get their chests right up over the top on the first jump. That's the fastest, no question. Some can kind of scrabble up half sideways and slip over mighty pretty. Some like to walk up to their hands, like we did on the other one with the ropes. I don't care how you do it, so long as you get over and don't hang from the top sort o' wretchin' and swingin' your legs like a fish danglin' on a line. Once you're over, keep right on goin' through four more obstacles, till we stop you. Okay. On your marks. Get set. Go."

The four men illustrated the four methods the lieutenant had outlined, one getting clean across the top at the first jump, one getting an elbow up and "scrabblin'" over, one walking up to his hands till he got a leg over, and one hanging and jerking like a fish till Sergeant Lacey got under his feet and hove him up.

The next obstacle was a complicated maze of bars like a child's jungle gym. Those who tried to go through it got into contorted

attitudes and proceeded slowly, while those who went up and over had no trouble.

Next there were beams to walk about ten feet across a ditch, and that was easy. Then there were culverts to crawl through for about ten feet, easy now but a very serious obstacle to a man with full equipment, including a rifle slung on his back. Beyond that was a series of two foot square boxes to walk through, calling for a technique similar to that of walking through posts and wire, except that it was possible to go faster here, while if you did fall you were more liable to break a leg. As the four men emerged from this hazard the lieutenant stopped them to give instruction about the last obstacle.

"This contraption in front of you is the last sprint, boys, and you take it on your belly, or on your back if you like that better. The first thing about it is to relax. You just run up and dive over this low bar, just hard enough so your feet will clear it. You come down garrump in the soft sand that won't do a thing to you if you're relaxed and won't do more than knock your wind out if you're tense and stiff. After that you crawl along under that wire. And that's real barbed wire that'll nip you if you get even up on your hands and knees. You just kind of swim along with your elbows, wrigglin' a little like a snake. We call it the 'doughboy crawl,' and you'd be surprised to find how fast you can do it. The real way to do it is on your back, so your hands are free to cut any wire that may be in your way. But we'll do it on our bellies for now. It's easy enough the way you are now. When it gets to be fun is with a rifle slung over your shoulder and a full pack. Suppose you four chiefs of section take off your raincoats and give a demonstration, just to get yourselves warmed up."

The four sergeants lined up and Sergeant Butts started them off. They went over the two and a half foot high bar together, stretched straight out like a racing dive into water. There was no shock when



First round! A 155 mm. howitzer in full recoil.

they hit the soft sand on the other side and they seemed to be crawling with elbows and knees even before they hit, rolling from one side to the other. They progressed perfectly in line for the twenty foot crawl under the wire and emerged all together up the ramp on the other side, dusting off their clothes. On Lieutenant Landon's signal the four rookies followed, each one of them knocking a loud grunt out of himself when he hit the sand and all of them pushing through slowly with their feet instead of rolling from side to side as the cadres had done.

The next twenty minutes was a cageful of awkward big monkeys tumbling over the walls, the ditches and the bars. A cadre to each squad kept careful control of the men, holding back one four till the obstacle in front was cleared, telling men to go round a wall or to drop from the horizontal bar when they seemed to be stuck. They had their eyes out especially for real lame ducks who seemed to be weak on coordination.

As fast as the boys emerged from the final crawl under the wire, their section chiefs had them put on their raincoats and tin hats and fall in. The mist had settled into a real drizzle. Lieutenant Landon told Sergeant Butts to take the platoon to the barracks to get their gas masks and then to the Rec Hall.

Because of the rain outside, Lieutenant Landon lined the men up informally around the outside aisles of the Rec Hall and put them through fifteen minutes of gas mask drill. Then he told them that from now on they must be ready to snap on their masks any time and anywhere at the order of "Gas." "In an organized outfit," he told them, "anybody could shout 'Gas,' but here we might have a few too many wise ones for that to work out for the best. While we're here nobody can holler 'gas' but the senior person present in a formation or on the floor of a barracks. You all know now who's senior among the officers and the cadres. After a few weeks we'll also have some first class privates among you men, and maybe some

acting corporals. It's a good notion from the beginning always to know who's the senior member of any group of soldiers."

The rest of the hour was devoted to movies, showing the various sirens and whistles used for gas alarms—the usual alarm was two blasts of an ordinary sergeant's whistle, the posting of gas sentries with their instructions, the construction of gas shelters, and the methods used to decontaminate a building, trench or shelter of gas.

The next hour was in barracks, another session on equipment. To-day the lesson was mostly in packing the haversack and in rolling blankets inside shelter halves for overnight marches. Jack Boulter had been ordered from the dispensary to his bunk where he lay in lordly ease, his ankle strapped up and a pair of crutches handy.

At eleven o'clock a new and exciting subject was introduced. By sections, the platoon put on its raincoats and went down to the supply room to draw their rifles, fresh from the boxes and oozy all over with grease. At the same time they got their rifle cleaning outfits. Almost the entire hour was consumed in the issue, and in wiping off the grease. After several of the soldiers on the first floor had asked, "Is this that new Garand or whatever they call it?", Sergeant Butts came out from his room and made an announcement: "Might as well tell you that this ain't the Garand. Only the doughboys get that. This ain't for firin' fast. It's for hittin' what you shoot at. It's the old Springfield, and I'm here to tell you it's the most accurate gun in the world."

As soon as a man had his gun wiped off, he was assigned his slot in the rifle racks against the partition cutting off the cadres' rooms, the First Section on the right, the Second on the left. The chiefs of section issued strips of adhesive, on which the men wrote their names and stuck them over their place in the racks.

The rain let up during noon chow, but the weather remained gusty and cold. The one o'clock session was on rifles again, in barracks. Under the immediate instruction of the section cadres, but

with the close supervision of the lieutenant and Sergeant Butts, every man took his rifle apart, clean down to the trigger mechanism, and put it together again. When the hour ended a good many rifles were still lying in fragments on the shelter halves. But in five minutes the cadres had them all together.

In spite of the blustery weather, Lieutenant Landon carried out the next part of the program, which was dismounted drill, chiefly the manual of arms, on the drill field. By the end of the hour most of the men could negotiate by the numbers the seven basic movements of the manual—"right shoulder arms," "left shoulder arms," "order arms," "parade rest," "port," "present," and "slope arms." The next period was supposed to be on military courtesy, but Lieutenant Landon observed the schedule only so far as to teach the two rifle salutes, at right shoulder and at order arms. Then he returned to the manual proper, and for the last half hour marched the platoon round the drill field, the first platoon in the battalion to do dismounted drill with rifles.

The last period on this Wednesday was a lecture on First Aid by the captain in the Rec Hall.

VIII

THURSDAY

THURSDAY WAS GRAY and cold but without rain. The men were instructed to wear overcoats. The eight-to-nine hour of physical training was on the obstacle course again.

The next two hours were motor instruction. During the first hour the first two sections had the training films with recorded lectures in the classroom which the Third and Fourth Sections had had on Tuesday. The first film demonstrated the use of the simple tools needed for routine inspections and adjustments, and at the close of the film the men filed up past the tables in front of the classroom and handled the tools they had seen in use in the film. The next film was on arm signals, and at its close everybody had to come forward, sit in a chair, and repeat the signals they had seen.

At the beginning of the second hour of motor training Motor Officer Spellman read a new list of qualified drivers. The hour was devoted to practical instruction in operating the trucks, or prime movers as they were called, the 1½-ton trucks that were the prime movers for the howitzers and the big 4-ton "Diamond T's." The platoon was divided into its eight squads, and each squad was taken over by a cadre at one of the ton-and-a-half trucks. Everybody in turn was required to inspect the truck, start the motor, explain what they would do to warm it, start it and immediately stop it.

The next hour was supposed to be devoted to gas instruction, but Lieutenant Landon combined it with the review of military courtesy he had omitted yesterday.

After noon chow Lieutenant Landon double timed the platoon

up to the drill field and gave them two hours' instruction in the important matter of interior guard, the business of being posted as a sentry, walking post, halting persons approaching the post, examining credentials, saluting on post, calling the corporal of the guard, being relieved, etc.

To begin with, Lieutenant Landon fell out the platoon by squads, and had the members of each squad recite the general orders to one of the section cadres. This as usual occasioned a few entries in the books of the section chiefs, when such as Alum, Brillanti, and Bernstein turned up ignorant of the rules. Next, Lieutenant Landon formed the platoon and put it through a snappy drill in the manual of arms, and afterwards gave a lecture on the importance and responsibility of the guard, and the difference between general orders—which they had already learned—and special orders, which were special to each post and were changed from time to time.

The lieutenant divided the platoon into two separate guards of two sections each. He himself took charge of the guard consisting of the first two sections, and turned the other two sections over to Sergeant Butts who marched his detachment off to another part of the field. Lieutenant Landon explained to his sections how there was always an officer of the day who was responsible for the whole camp—in practice he would be Officer of the Day—and an officer of the guard who was in command of the guard—Sergeant Edwards would be Officer of the Guard. Under the officer of the guard there was a sergeant of the guard who was over the whole guard, and a corporal of the guard over each relief. The lieutenant explained that a sentry saluted officers by coming to present arms, and that he came to port arms when talking to anyone. On the practice posts each sentry would challenge all persons crossing his post and call the corporal of the guard if someone showed up without a proper pass.

Lieutenant Landon then marked off sixteen practice posts around



A dance of leaves and camouflage—a 240 mm. in full recoil.

a big square and had Corporal Storm post the first section as the first relief.

There followed practice in halting strangers, with and without passes, calling the corporal of the guard, and calling for relief. After that the second section was posted as the second relief, and all the exercises were repeated.

The hour from three to four was instruction in formal shelter tent pitching, in the battery street, the front and rear rank men buttoning their shelter halves together and sharing the resulting tent. For the last hour of the day Lieutenant Landon and Sergeant Butts conducted two practice inspections, the first a field inspection with all equipment laid out on folded blankets in front of the shelter tents, the second an inspection in barracks, with equipment laid out on the cots. For the last exercise of the day, Sergeant Butts formed the platoon with rifles and Lieutenant Landon inspected it, instructing the men how to prepare their rifles for inspection when an inspecting officer came down the ranks.

IX

FRIDAY

ON FRIDAY THE entire hour of physical training was given up to rifle calisthenics. Lieutenant Landon himself drilled the platoon throughout, looking down on the men from the high instruction platform and using the microphone with amplifier at the corner of the platform for instruction and commands. The men were led in the exercises by Platoon Sergeant Butts and the four other chiefs of section, Sergeant Butts on the high platform with the lieutenant, and the four other sergeants on lower platforms in front of the platoon, all five cadres with their backs to the platoon so as to perform the exercises exactly as the men should. By the time the hour was over, the platoon could do three sequences of rifle calisthenics, without the leadership of the cadres, calling their own cadence and commands with fine, rhythmed roars.

The second and third hours Friday morning comprised the second period of cannoneer drill in the gun park, and Joe was in his element again. Every night he had been struggling with his drill manual, and already he knew by heart the duties of about half the cannoneers in "prepare for action" and "march order."

Today the drill was of the whole platoon together as a firing battery, Lieutenant Landon, who was the executive officer of the battery, conducting the drill himself. By the end of the first half hour the squads were jumping around the guns with something approaching the clockwork precision of real artillerymen, but the commands they could execute were still only the elementary ones

of "Cannoneers, posts," "Rear of your piece, fall in," "Front of your piece, fall in," "Count off," and "Change posts, march."

After about half an hour of drill, Lieutenant Landon called out the qualified drivers and section corporals from each section, had them form in column of twos, and Corporal Storm marched the detachment off in the direction of the motor park. The lieutenant then turned the sections back to their chiefs for new instruction.

With Ainsworth, Atterbury, Barney and Boulter out—Boulter was allowed to come down on crutches to watch the drill—there remained only twelve men in the First Section. Sergeant Edwards lined them up in single rank behind the piece and gave them at ease.

"Now," he said, "how many of you think you know by heart the duties of the Gunner and Number One Cannoneer in both prepare for action and march order?—step one pace to the front." Achs, Boom, Bamburger and Browne stepped out of ranks.

"Now, of you four, how many think you know the duties of Number Two Cannoneer?—step another pace to the front." Thus by a process of elimination the sergeant found that Boom had learned the most from the regulations, Bamburger next, Achs next, and Browne the least of the four who claimed any knowledge at all.

"Okay," said the sergeant. "Now we're going to make a howitzer squad with the men who know the most taking the lower numbered posts. Fall out, and fall in again as a howitzer squad in rear of your piece as I call your names."

The men stepped back and the sergeant continued: "Gunner—Boom." Joe sprang to the gunner's place, at the same time enjoying a surge in his stomach. He had made gunner! That was the one that was a corporal and aimed the piece and was in command of it.

"Number One," continued the sergeant, "Bamburger." The rosy faced, already popular boy jumped up beside Joe. "Number Two—

Achs." The big lumberjack eased up beside Irving Bamburger—he liked this Number Two—he was the one that loaded the piece. "Number Three," said the sergeant—he paused to twit Jeff Browne who looked expectant, pretended to search through his book and at last said, "Browne." Jeff jumped into line, at the same time snapping his fingers and saying "Hot dog!"

"You're at attention in ranks," cautioned the sergeant.

Edwards seriously studied his book before assigning the other four positions. He decided on Number Four—Adamic, Number Five—Atski, Number Six—Amkovitch, Number Seven—Addelheim. When they were lined up at attention, he said, "Now you'll operate as a set squad for a while, without changing posts. Let's see you hop. Count off."

All eight boys felt important and they snapped out the count almost without interval between numbers.

"Cannoneers, posts."

"Rear of your piece, *fall in.*"

For ten minutes he put this squad through its paces, adding the new feature of starting to march the squad off in some irrelevant direction, then giving them suddenly "Cannoneers, posts," which made a scramble and habituated them to getting around the piece from different directions without getting in each other's way.

Presently, when everybody was at his post, the sergeant gave them at ease and said, "Now we're going to try something new. You all know that the way the piece is now is neither in action nor at march order. It's sort of halfway. Having the howitzer cover off, the breech open, the brakes set, after having been released, the trail lock pins in firing position, the travelling lock released, the axle locks released, the drawbar in firing position, the cradle lock released, and the trail spread, all that looks like prepare for action. But there's a lot more to do yet. Gunner, can you tell me what else you would do to prepare for action?"

Joe counted off his duties on his fingers, and when he came to one that hadn't been done he recited it. "I'd remove and seat the panoramic telescope. I'd uncover the telescope mount bubbles, set the index of the rotating head at zero, the deflection at zero, and level both bubbles."

"Check," said Sergeant Edwards. "Number One, what else would you do to prepare for action?"

Irving Bamburger had had time to think. "Guess all my duties have been done," he said, "excepting to uncover the range quadrant bubble; if directed by the executive, replace the range drum for charge five with the designated drum, set site 300 and range 3000, and level both bubbles."

"Good," said the sergeant. "Now then, Number Two, what more have you to do to prepare for action?"

"Well," said Achs gravely, "I guess I'd have to get this here rammer staff, put the rammer together and set it over yonder to the right of the piece. If Irving there asked me, I'd help him clean out the breech. I guess that's all, being most of my duties been done a'ready."

"Very good, Achs," said Sergeant Edwards. "That's the way to learn things, men. To know what they mean in your own words instead of just knowing how to recite the book like a parrot. All right, Number Three, what have you to do that hasn't been done?"

"Well," said Jeff, "looks like I was the big boy to tell Four, Five, Six and Seven what to do about arranging ammunition and tools. After I'd told them what to do I'd get the fuse setter and set it by me convenient-like."

"Check," said the sergeant. "Number Four wouldn't have anything more to do except assist Number Three arranging ammunition and tools. The same for Number Five except—what? Anybody know?" Nobody did. "Remove the aiming posts from the travelling



Boom! A 240 mm. goes off through the open mouth of the camouflage net.

position and place them beside the rammer staff. These are the aiming posts," he added, indicating a long case lashed to the trail. "You'll learn plenty about them when we start practice firing.

"Now, today, we're not going to complete 'prepare for action,' but we are going to put the piece in march order. Gunner, suppose you tell me what you'd do if we were in action now and you get the command, 'March Order.' "

"First I'd take off the panoramic telescope and put it in its box—here, I guess. Then I'd cover the telescope mount bubble, here. Then I'd put the left trail lock pin in travelling position. I'd release the left hand brake. With Number One I'd put on the breech and howitzer covers."

"Check," said the sergeant. "Number One?"

"I'd look in the breech and clean out any loose dirt. Then I'd shut the breech. I'd put the range drum away and cover the range quadrant. I'd operate the elevation handwheel to help Number Four lock the cradle lock. I'd put the right trail lock in the travelling position. I'd release the right hand-brake if it was set. I'd help the Gunner put on the breech and howitzer covers. I'd lock the travelling lock."

"Very good," said Sergeant Edwards. "You'll notice that Number One and most of the cannoneers have a good deal more to do than the Gunner. That's because the Gunner is the corporal in charge of the whole piece. Besides tending to his own business, he has to be sure that everything else is done right.

"Now let's take Number Four. Adamic, the first thing you'll do is to help Numbers Three, Five, Six and Seven get the ammunition and tools together, ready to load on the prime mover. Then you'll come up here in front of the piece and with Number Five you'll strap on the muzzle end of the howitzer cover. Then you'll get down under here and flip over the travelling lock while Number One helps

you by elevating or depressing the piece according to what you call to him.

"Next, let's look at the duties of Number Five. The first things he does he'll have to pretend doing, the same as Number Four. He helps Three, Four, Six and Seven get the ammunition and tools ready to load on the truck, and then he puts back the aiming stakes here. After that he runs up here, gets the howitzer cover and throws it on and straps down the muzzle end with Number Four.

"All right now, let's go through the duties in 'march order' of the Gunner, Numbers One, Four and Five. When I give you the command, just do the things we've gone over, and take your time. It's all easy except Number Four managing the cradle lock, and I'll give him a hand if he needs it. All right, *march order*."

The four men went clumsily through their duties, Number One at the elevating handwheel and Number Four at the axle being unable to get the cradle lock in travelling position till Sergeant Edwards took a hand. As he got up, he said, "Now you four stay where you are. All this time Number Two, Three, Six and Seven would have been doing their duties which would have the trail together. Now we'll see what they do. All right, Number Two, what do you do at the command 'march order'?"

"Well," said Achs, "if Irving there wanted me to I'd help him clean out the breech. I'd take the rammer apart and put it where it belongs on the trail. Then I'd carry the left trail in, helped by Number Six."

"Right," said the sergeant. "Now what about Number Three?"

"Put the fuse setter back in the section chest," said Browne. "Show the boys what to do with the ammunition and tools. Go over and pull the right trail together, along with Number Seven. Put the draw-bar in the travelling position and lock the lock."

"Good," said the sergeant. "Next is Number Six. He helps the

rest arrange the ammunition and tools. He puts the section chest, assisted by Number Seven, to the left of the piece. He assists Number Two close the left trail and locks the trail lock. Number Seven does the same things, except that he helps close the right trail with Number Three, and he doesn't have to bother with the trail lock. Remember now, when you are closing or spreading the trail, never get your foot under it. If it drops on your feet you'll never walk again. It's about the most dangerous thing around the howitzer. All right now, nice and easy. Numbers Two, Three, Six and Seven only, *march order*."

The four boys carried the trails together, but they couldn't get it so Amkovitch could close the trail lock. Sergeant Edwards had to come and direct the maneuver over from the beginning to make it work. "It's just a matter of practice," he said. "Now, Numbers Four and Five, what you've been waiting for is to lock the left and right axle locks after the trail was closed. Go ahead now and complete *march order*." The sergeant went up to be sure they had slid in the axle locks properly, then stood up and said, "At the end of *march order* you always fall in at the rear of the piece unless some other command is given. All right, hop."

Sergeant Edwards next instructed the cannoneers in their duties in coupling the piece to its truck or prime mover, Numbers Two, Three, Six and Seven lifting the trail to drop the ring over the truck's pintle, the Gunner and Number One on the wheels, Numbers Four and Five helping on the wheels, or if necessary riding the muzzle of the howitzer to make the trail lift easier.

The men had just got the hang of this maneuver when four trucks came down along the rear of the guns, led by Top Sergeant Smith in a peep. They were Battery D's own trucks, and were being driven by four of the fourteen men of the platoon who were already qualified drivers. Proudly at the wheel of the first truck sat Al Ains-

worth. As he approached he and Joe exchanged a glance. Each of them was getting where he wanted to be! In the seat with Al was Corporal Storm, with Atterbury and Barney sitting on the benches along the sides in the body of the truck.

Al buzzed easily along in a low gear, keeping his foot even on the accelerator. Suddenly Sergeant Edwards commanded, "Front of your piece, facing it—*Fall in*." The howitzer squad scurried to line up in front of the muzzle facing the rear. The front of the truck was now almost up to the trail, and Al swung out to the right and halted when he had the truck in prolongation of the trail and about ten feet from it. Sergeant Edwards now went to the left rear of the truck, and Al leaned out of the cab, watching him. Turning to the howitzer squad, the sergeant called, "Remember, if we had ammunition, tools and section box we would load them now, before backing to couple." With that he looked at Al, held up his hand, moved it in signal to come on, and Al, without racing the motor, began to back. The sergeant kept signalling him to come on, till the pintle or steel ring on the rear of the truck was just over the end of the trail, when he held up his hand and Al stopped.

"Couple," commanded Sergeant Edwards, and the howitzer squad jumped to the duties they had just been practicing. Without mishap they got the piece coupled and locked to its prime mover. At Corporal Storm's order in the cab, Al Ainsworth cut off his motor.

There followed twenty minutes of instruction in the posts of cannoneers with the carriages coupled, in mounting and dismounting. At last, when all were mounted, the chief of section on the seat beside the driver, Sergeant Edwards gave the command, "Drive on."

When Al had moved forward about ten feet, the sergeant halted him and shouted, "Prepare to dismount—*Dismount*." The squad jumped out and ran to their posts. "Uncouple," commanded the sergeant. They took their posts for coupling, and reversed the former

operation. Under Corporal Storm's orders, Atterbury now replaced Ainsworth as driver, and the truck moved off, followed in column by the prime movers of the other sections that had been going through the same exercise.

It was now past eleven o'clock and Sergeant Butts fell in the platoon, the men taking their normal positions and the drivers now back in place, marched them to barracks, gave them five minutes out and fell them in again with gas masks. For drill in "protection against chemicals" today, Lieutenant Landon took the platoon for a hike, occasionally shouting "Gas" and "All clear," accustoming the men to march with their gas masks on. Noon chow was baked fish and mashed potatoes, stewed tomatoes, cabbage, bread and butter, cookies and milk.

After dinner Lieutenant Landon took the platoon up to the drill field, split it into sections and had the section chiefs teach the men to stack arms. Then he had them taught "eyes right" and "eyes left," the section chiefs marching their sections by him for this command, as if he were a reviewing officer. With these two commands, their knowledge of dismounted and rifle drill was complete. For an hour and a half the lieutenant put them through foot drill and the manual of arms, now demanding perfection, and not scrupling to bawl out individuals by name. By three o'clock he had them marching by him, eyes right or left, in a platoon front of thirty-two men. Then he double timed them to barracks, marched them with full packs for half an hour, and ended with a brief inspection of equipment in barracks. For the last hour he turned them back to the section chiefs and had them clean rifles, each man to be dismissed as soon as his rifle passed his own or Sergeant Butt's inspection.

Back in barracks Joe had never felt more tired or better in his life. It had been the toughest day yet. Although it was warm out, everybody in the squadron was doing bunk fatigue.



105 mm. on half track—indirect fire.

Sergeant Butts came out of his quarters and stood facing the room. "I suppose all you guys have read the bulletin board," he squeaked. "Battery inspection tomorrow. Special attention to rifles, mess kits and shoes." He paced through the barracks to go upstairs and repeat the warning. Warily a few men opened their foot-lockers and took out their shoe polish.

X

WEEK END

SATURDAY WAS A half day, except for punishments and special details. It was a day of review, both in the sense of a recapitulation of the essential work of the week, and in the military sense of a review before a superior officer. It was a day when the training took on large dimensions, when the men who had exercised by sections and platoons found themselves part, sometimes of a battery that was as large as a combat battalion, sometimes of a battalion that was as large as a normal regiment. On this first Saturday Captain Anderson acted as the reviewing and inspecting officer, though both the major of the battalion and the colonel of the regiment were present at the main exercises.

For the physical training period from eight to nine, the battery formed in column of platoons in platoon front before the high platform—really a reviewing stand—on the drill field. From there Captain Anderson personally put the two hundred and fifty men through rifle calisthenics. When they went through the familiar exercises, calling their own cadence, Joe felt a thrill of power in the united roar. Now for certain he was in the Army.

The second hour was the real show of the day, dismounted drill of the battery, in which the captain at once roared the commands and was the reviewing officer. In column of platoons in normal depth of four ranks, with a sixteen-man front, he marched them up and down the field, turning by column, moving by the flanks and to the rear, the whole battery being called on to count cadence if one man was out of step. Then, again in front of the reviewing



The army mule forever! Mountain artillery on the march.

stand, he massed the battery and put it through the manual of arms, the men shouting the numbers for every movement. Finally he formed the battery in line of platoons along the rear of the field and marched it in review past the reviewing stand on a thirty-two man front, eyes right as each platoon passed, as if the captain had been the General or the President. The colonel and major were both watching this maneuvre, and when the battery was back in line, the major personally congratulated Lieutenant Landon before the whole platoon.

From the drill field the platoons were marched back to barracks and given ten minutes to prepare for inspection. They were to wear only drill uniforms, the rest of their equipment to be laid out on their bunks as previously rehearsed. At twenty minutes past ten the battery was formed by First Sergeant Smith in double rank, filling the length of the battery street, and given open ranks. None of the officers was present, and the platoon sergeants spent some minutes perfecting the dress on big Achs, the right guide. When this was completed the top kick gave the battery at rest and sauntered to his post on the right of Achs. Nobody had seen Sergeant Smith shined up before. His big tin hat, face and uniform all seemed to glitter, and when he walked to his post with his rifle at right shoulder, though he took his time, it was like some huge dynamo moving in slow precise perfection.

The officers had been watching all this, peeking around the corner of the orderly room, and now all five of them approached, spruced up in their own best fawn slacks and olive green blouses, their brass buttons glinting, each of them carrying a pair of gloves in his hand. As they approached the right of the line Sergeant Smith took two paces to the front, did left face and bellowed, "Bat'ry, attenshun." Two hundred and fifty pairs of heels clicked as one. Sergeant Smith did an about face like a featherweight elephant and saluted Captain Anderson.

"Second, Third and Fourth Platoons at ease," said the captain.

The big sergeant did another about face. "Second, Third and Fourth Platoons, at ease."

"At ease," "At ease," "At ease," repeated the three platoon sergeants in front of their platoons. Sergeant Smith did another about face, walked to meet the little column of officers and fell in at its rear.

Sergeant Butts did an about face to face his platoon. "First Platoon," he squealed, "prepare for inspection." The platoon stood as if frozen, while, without budging a head, fifty-odd pairs of eyes strained down to inspect themselves, to see if a cinder had alighted on their uniforms, or if they'd kicked up dust on their shoes in snapping to attention. Butts walked to the rear of the inspecting party, to follow there while they were inspecting his platoon.

At the command, "Prepare for inspection," Achs, the first victim, being well coached, had whipped up to port arms and shot back his rifle bolt. The captain grabbed it in the middle with a vicious gesture, as if it were something Achs had stolen from him, looked into the chamber, grasped it near the muzzle, swung the stock up to the sky and peered through the barrel, swung it down again and thrust it at Achs with the same violence with which he had snatched it. Sergeant Butts, at the rear of the inspecting column, made a furtive gesture to Achs, who shot the bolt back, snapped the trigger, and whipped down to order arms.

Meanwhile Adamic had properly come to port and drawn back the bolt at the moment the captain snatched Ach's rifle, and he was now being subjected to the same insulting treatment that Achs had endured. . . .

Having covered men and rifles of the First Platoon, the captain now led the reviewing party into its barracks, where the bulk of each man's equipment was laid out on his bunk. Through the windows the men, still standing at attention, watched the officers pass-

ing rapidly from bunk to bunk, up one side and down the other. They could see them delay a few seconds at some of the bunks, saw mess kits picked up and examined, but they could not hear their remarks.

When the inspecting party emerged from the First Platoon barracks, Captain Anderson said, "Very good, Sergeant Butts," and the sergeant returned to his post in front of the platoon, facing it. When the sergeant of the Second Platoon had called it to attention and given the order, "Prepare for inspection," Sergeant Butts said quietly, "First Platoon, at ease." Having been at attention almost fifteen minutes, the men relaxed with a sudden, rustling sigh, like a balloon deflating.

When the inspection was complete First Sergeant Smith marched to the center of the front of the Battery, bellowed it to attention, and did an about face. Captain Anderson took post in front of him, returned his salute, and said, "Read the list." The other officers sauntered down to the Orderly Room. Sergeant Smith did an about face, shifted to left shoulder arms, took out his book, held it in his left hand along with his rifle butt, and turned the pages with his right hand as he read off the list of culprits.

"The following men," roared the top kick, "will have bunks ready for inspection by platoon sergeants at one-thirty: Addelheim, Bernstein—" the list went on through the rest of the Battery. "Following the inspection, these men will perform such policing in and around quarters as their platoon sergeants shall prescribe.

"The following men," continued the voice of fate, "will report outside the orderly room for inspection at two o'clock: Addelheim, Arnberg, Bernstein, Browne"—and so on through the Battery. "Following this inspection, these men will report to their platoon sergeants to perform such policing in and around quarters as their platoon sergeants shall prescribe.



Landing operations—mountain 75 mm. howitzer.

"Five minutes after this formation, platoons will form and march to the Rec Hall for an orientation lecture."

Deliberately Sergeant Smith tucked his book in his pocket, crossed back to right shoulder, and did an about face to face the captain. "Take your post," commanded the captain. Sergeant Smith walked to the right of the line in his usual military manner. When he was there Captain Anderson shouted, "First Sergeant, dismiss the Battery." The top kick advanced two paces, faced to the left and gave off his roar, "Dismissed."

In the orientation lecture in the Rec Hall the captain reviewed the causes of the war, chiefly recounting the aggressive modern histories of Japan and Germany. He minced no words about the prospect of its being a long, hard war. At the close of the talk he said that he would not take time for questions now, but that if anyone in the battery was troubled about the war, its causes and objects, he wanted them to come to the orderly room that afternoon and discuss it with him. If any man had doubts and came and confessed them honestly, he would be treated without prejudice.

Before dismissing the battery, the captain congratulated everybody on the progress they had made during the week. He said that from now on the schedule would move even faster, but that they were beginning to get in condition, and by the end of next week all their lameness and fatigue would be gone. With the exception of the men who didn't pass inspection, there would be no duty this afternoon or tomorrow. He reminded the men that the quarantine was still on and they must not go anywhere outside the battalion area, including the Rec Hall, and to the P.X. When he told Sergeant Smith to dismiss the battery directly from the Rec Hall there was a burst of spontaneous applause.

XI

SECOND WEEK

DURING THE SECOND week of training the Battery shook down into full military routine and, as Captain Anderson announced, the tempo of the schedule was stepped up. On Monday at reveille the first kitchen police ("K.P.") detail was read off by the top kick, two men from each platoon. K.P. was not given as punishment but went by roster for a tour of a week. Their duties were to eat all meals half an hour before the battery, set and wait on the tables, and wash the heavy china, G.I. dishes. They were excused from standing reveille and retreat, but were not excused from other battery duties except guard.

From now on all breaches of regulations met with prompt punishment. It was pretty much the same group—some members of it sullen, some just dumb—that was guilty, week after week. These men, forever seen washing windows, mopping, emptying and scrubbing garbage cans on the rack behind the kitchen, raking the Battery Street, pushing wheelbarrows up and down it, picking up bits of paper, cigarettes, matches and other items feloniously dropped, or spreading manure on the sorry flower beds along the sides of the barracks, these unfortunates—or fortunates, as some of them considered themselves—acquired during this second week of training the appropriate name of "yard birds."

In this second week of training, instruction in personal hygiene, first aid and gas defense was rushed to completion. On Monday Lieutenant Landon marched the first platoon over to the "gas chamber," a small room in one of the motor sheds. A squad at a time, he took them into the sealed chamber, where presently every-

body began to cough and rub his eyes. Then the lieutenant would call "Gas," the masks would whip on and everybody would breathe freely. This gave the men confidence in their gas masks, though it was only tear gas that was used in this demonstration. Afterwards, in the open air, the men were drilled in recognizing the dangerous gases from the "sniff sets." Little vials containing a light saturation of each type were passed round for the men to smell, while the lieutenant told them the particular dangers of each type.

On Tuesday the whole battery got an effective demonstration of a gas attack on an artillery position. The battery was marched to the gun park, halted behind its four howitzers, given right face and at ease. This placed them facing to the west, the direction from which the wind was coming. The men did not know what was coming, and they had not been told to bring their gas masks. The officers and platoon sergeants were out in front between the guns, but the rest of the cadres were behind the long line for the purpose—as it turned out—of keeping the men in ranks. Suddenly, about twenty feet in front of each of the four howitzers, there were four explosions, muffled but strong enough to make the ground tremble and kick up dirt six or eight feet in the air. The dirt settled quickly, but a very thin, hardly visible, yellowish cloud remained and started moving toward the battery on the light wind. To reassure the men the officers and the platoon sergeants between the howitzers all stood at rigid attention while the cloud came on and enveloped them. "Steady, men," came the voices of the cadres behind the nervous ranks. The cloud drifted into the ranks, bringing with it a delicate, sweet odor. Somebody in the Second Platoon coughed, and immediately half a hundred boys up and down the ranks were coughing contagiously.

"All right, men," said Captain Anderson from out in front by the little crater left by one of the four explosions, "cut the coughing. There's nothing to cough about. Now when I say three I want you to shout the name of that gas together. *One—Two—Three—*"

"Mustard," came the united roar.

The captain called forward the chiefs of section who put on rubber gloves, scooped up handfuls of earth from the craters left by the "gas shells," and passed them along the ranks for the men to smell. After this Joe could no more have forgotten the smell of mustard gas than he could the smell of the baby skunk he had picked up as a boy, thinking it was a kitten. The exercise was repeated with the other deadly gases the men had learned about yesterday, small vials of them having been buried along the line of guns and being set off by means of a battery and explosive charges, like blasting.

On two afternoons that week the battery was marched over to the practice rifle range west of the highway and trained in aiming rifles, standing, sitting and prone. From the beginning, the elements of safety were applied, the routine of passing back and forth between the "ready line," and the "firing line," the detailing of a "coach" to each man firing—all this in spite of the fact that no ammunition would be issued before the first firing practice, still two weeks off.

On Thursday night it fell to the First Platoon to furnish the guard for the Fifth Regiment area. For half an hour on Tuesday and Wednesday the platoon had been trained in challenging people at night and advancing them to be recognized. At half-past four on Thursday afternoon it was fallen in for inspection by Sergeant Butts. Addelheim, Arnberg and Bernstein failed to pass and, along with four or five from the other sections, were excused from guard and detailed to yard bird duty for the rest of the week. The rest of the platoon was marched to mess hall for early chow. At twenty minutes past five Sergeant Edwards, who was to be Sergeant of the Guard, marched the detail to the Guardhouse on the corner of 5th and G Streets, opposite the P.X. There Lieutenant Landon, who was Officer of the Guard, was waiting for them. The Officer of the Day was

from the 13th Battalion and most of the men failed to notice and identify him while they had a chance by daylight.

After the informal change of the guard, Lieutenant Landon told Sergeant Edwards to post his First Relief, which consisted of the First Section and part of the Second. Corporal Storm was Corporal of the First Relief, and when he had formed it he marched it round with the Corporal of the Old Guard and took over the nineteen posts of the regimental area. Meanwhile, the Second and Third reliefs of the New Guard took over the Guardhouse, there being scuffles to see who would get the lower bunks in the guard room.

Because Achs and Adamic were on K.P. and Addelheim had not passed inspection, Ainsworth, being the next alphabetically, got the responsible Post Number One at the Guardhouse. Boom was Post Number Two, which ran down the north side of G Street past the P.X., the 15th Battalion Rec Hall and 15th Battalion Headquarters, and back up the south side of the street past the mess shacks of Batteries C and D of the 14th Battalion and all the mess shacks of the 15th. Joe's special orders were to walk down the north side of the street and back up the south side, and to challenge and identify all persons who came within the limits of his post after tattoo. Beyond Joe, on Post Number Three, was Amkovitch.

It was about a quarter of six when Joe was posted, and nothing of interest happened during his whole first tour of duty, which was technically from 6 to 8. At half-past six Lieutenant Landon came along, wearing a pistol in his capacity of Officer of the Guard, and after Joe had greeted him with a proper present arms, he put him through both his general and special orders. After supper G Street was filled with soldiers going to and from the 14th and 15th Battalion Rec Halls, but it wasn't Joe's business to challenge them at that hour. At a quarter of eight he was relieved, and he played penny ante in the guard room till the Third Relief went out at a quarter of ten, when he turned in with everything but his shoes on. At half-



"Little Poison" (37 mm.) on a jeep.

Anti-aircraft into position—37 mm. and machine guns.



past eleven Corporal Storm routed him out, with the rest of the First Relief, and at a quarter of twelve he was back on his post on now deserted G Street.

It was so dark that the moment the relief left Joe, tramping on toward Post Number Three, it vanished completely in the night. Starting to walk his post in the direction the relief had taken, he presently saw the glow of Corporal Storm's flashlight far down the street, heard him calling "Number Three," heard the answering "Yo," then the mumble of the ceremony of posting. The footsteps of the relief shuffled away into the distance, leaving Joe in silence and darkness but for the occasional swish of a car on the highway a quarter of a mile to the west.

Slowly he walked his two-hundred-foot beat, down the north side of the street to 15th Battalion Headquarters, up the other side of the street past the garbage cans and mess hall loading racks of five batteries, to the corner where one window glowed in the Guardhouse at whose door he knew Al Ainsworth was standing. To keep himself oriented he had to walk close enough to the buildings to see them, which was almost close enough to reach out and touch them, even after his eyes made their best adjustment to the night.

As the minutes passed Joe's sense of his responsibility increased till it reached out and filled the whole camp. Every minute sound became significant. He resented the failure of the authorities to have issued him ammunition. After all, what good was he? No spy was going to surrender or go away meekly merely when he was yelled at. Once when he fought a losing battle to restrain a sneeze, he felt that the sound of it was a traitorous thing he had done, revealing to the listening enemy that he was there.

He forced himself to be calm and listen judicially. Undoubtedly there were footsteps coming, still far off, but certainly approaching. They were coming from up and across the drill field. Once he had located them, Joe had an impulse to call the corporal of the guard

and warn him of the danger. No, that would warn the enemy that they were detected. Perhaps the best trick would be to run down to the other end of his post and tell Al Ainsworth who would warn the corporal. That wouldn't do either. It was his duty not to quit his post and to challenge the marauders when they reached it. In his mind he coped with every possible situation those footsteps might be bringing with them. Grimly he faced them, took his flashlight from his overcoat pocket, and waited.

Plainly the invaders were unaware that they were under observation, for they were talking to each other in low tones as they came across the drill field, and even chuckled in their sense of security. "Well," said one of them, "I could do worse than spend a night in the jug." One of them broke out a flashlight. Now they were coming down the ramp from the drill field. "We're sure to be challenged along here," said a voice. "You'd better get your papers ready."

Joe waited till he figured they were ten paces away. "Halt! Who is there?" he shouted loud enough to be heard all over the regimental area.

"Two members of the post and an authorized civilian," said one of the men.

Joe had his flashlight on them now and saw that this description seemed to be correct. "Advance one to be recognized," he said, "and bring the identification cards of all three."

One of the soldiers collected data from the other and from the civilian. "Halt," shouted Joe when the man was only about six feet away. "Put your identification cards on the ground and retire six paces." As the man bent down to comply Joe felt relieved to see three stripes on his arm.

When the sergeant had taken six backward steps as directed, Joe advanced, picked up the documents and inspected them. Two of them were proper identification cards, indicating a sergeant and a

corporal. The third was a letter which Joe made a feint to read, momentarily glancing up at the object of his suspicion, an older man who stood with a smile on his face and his hands in his civilian overcoat pocket. The letter was all Greek to Joe, something about "Public Relations" in the heading, the signature that of an unknown captain.

"What's this here anyhow, Sergeant?" asked Joe, flashing his light in the face of the cadre who had brought up the papers and whom he now remembered having seen around Battery A of the 15th Battalion, next door to Battery D of the 14th.

"He's a civilian," said the sergeant, "authorized by the War Department to write a story about the camp. Been detailed to us for the night, going to sleep with us in the cadre room of Battery A of the 15th. Do what you think's right, but my suggestion would be to pass us, then tell the corporal when you're relieved."

Joe had been planning to call the corporal of the guard, but his determined and heroic mood evaporated under the commonsense words of the sergeant whom he did recognize. "Okay," he said, "pass, two members of the camp and an authorized civilian." He managed to keep his flashlight on the three as he came to port arms and stepped back for them to pass.

"You did okay, sentry," said the cadre as they passed him.

Not long after this Al Ainsworth on Post Number One at the Guardhouse had his baptism of night sentry duty. Joe was just making his turn at that end of his own post when he heard Al yell from the Guardhouse door, "Halt, who's there?"

A few rods down 5th Street a flashlight illuminated a face, and an unknown voice said, "Officer of the Day."

"Advance, Officer of the Day, and get recognized," commanded Al.

The face did not move. "What do you think the flashlight is for

but to make you recognize me? Come now, Number One, what do you do when you see the Officer of the Day coming?"

"I gotta recognize him first," said Al stubbornly.

"Okay, then," said the officer in irritation, "if you don't recognize me call the Corporal of the Guard."

"Corporal of the Guard, Post Number One," yelled Al at the top of his voice.

Corporal Storm, who had been listening, came out and looked at the face in the flashlight down the street. "That's Lieutenant Banski, Ainsworth, Officer of the Day. You should have—"

Al didn't give him time to finish, but loudly performed his duty. "Turn out the Guard, Officer of the Day!" he bellowed. Corporal Storm looked inquiringly at Lieutenant Banski who called back, "Never mind the Guard," and came on.

"Never mind the Guard," roared Al.

After inspecting the Guardhouse, Lieutenant Banski put Al through his general and special orders in detail. Then, starting with Joe, he put the rest of the First Relief through the same test, but he took Corporal Storm along with him for purposes of identification.

After these two episodes the silent darkness closed down on Joe again, and again he felt the agents of the Axis creeping in on him from all sides. The danger now, however, was not quite as menacing as before. The only people who had materialized out of tonight's darkness, to the best of his knowledge, were the Officer of the Day and those two cadres with their civilian. Joe saw that the 15th Battalion sergeant's advice to him had probably been right, to pass them and keep an eye on them. He had watched the light come on in their room—cadres were permitted lights after tattoo—had later seen it go out, and had reported the matter to Corporal Storm and the Officer of the Day when they made their rounds.

Joe paused to flash his light on his watch and found it was half-

past one. Because of the length of time it took to make all the rounds, they were starting the reliefs out fifteen minutes early. He'd be relieved pretty soon now. He turned at the eastern limit of his post, crossed the road to the end of the mess shack of Battery C, 14th Battalion and started up the street on that southern side. "After all," he thought, "there isn't much to this interior guard. The real McCoy's round the outside where the M.P.'s are."

There was a shuffle behind him, a wrench on his gun and a harsh high voice, "Stick 'em up!" Joe wheeled, jumped in the direction of the voice and into a rifle barrel pushed into his stomach.

"Okay, Boom," said the voice, "get out your flashlight and take a look."

Joe's fury changed to chagrin. He recognized the voice. He whipped out his light and flashed it into the big grinning face of Sergeant Butts.

"Just doin' a little private inspectin'," said the sergeant, "to see who's on the job. Idea for you is not to walk so close to these racks or anythin' else that a fella could hide and jump out on you."

He handed Joe back his gun. "Sergeant," said Joe, "you wouldn't have done that if I'd had ammunition."

"You ain't tellin' me," said the sergeant. "That's just why you didn't get it. Figure to make live sentries of you boys first. When you've learned your stuff you'll get ammunition okay."

"Ought to arrest you," said Joe. "Ought to call the corporal of the guard."

"Sure you ought to," said the sergeant. "Interferin' with a sentry's a serious charge. Only this time the corporal and the captain and Headquarters knows all about it a'ready and they'd all appreciate it if you'd keep it dark so we can give some of the others a taste of something they won't forget."

Joe wasn't satisfied. "Well," he said, "still and all I gotta take



Desert drill with coast artillery anti-aircraft.

"Battery three rounds!"—105's, volley fire.



my orders from the officers and non-commissioned officers of the guard. Gotta ask you to walk along up to the end of the post, where I can call the Corporal easy like, without making any row."

"Okay," said Sergeant Butts, and he let Joe march him up to the corner and call quietly to Al Ainsworth, "Corporal of the Guard, Post Number Two."

Al relayed the call in a voice to wake the regiment. When Corporal Storm appeared, Joe learned that everything was as Sergeant Butts had told him. The sergeant disappeared in the darkness to practice his facility in rifle-snatching on other unsuspecting rookies.

During that second week another dozen of the men, including Joe, qualified as drivers. Joe told Sergeant Edwards that he hoped his qualifying as a driver wouldn't take him off the howitzer, and Sergeant Edwards smiled in his gentle, amused way.

Cannoneer instruction that week took in the cleaning of the bore of the howitzer and all of the carriage, the pulling and greasing of the wheels and dismantling the brakes. After this the men had a pretty complete knowledge of the weapon except for the tricky parts that had to do with firing, such as the breech and firing mechanisms and the details of the recoil system.

On Thursday afternoon the battery was introduced to the ancient Army ritual of signing the payroll. When its turn came, the first platoon filed down through the orderly room and into the office where each in turn saluted the captain, signed the great book spread three feet wide in front of him, saluted again and departed.

The big event of that second week was to be the review on Saturday before the General. Platoons, batteries and finally the whole 14th Battalion were put through mass drill every day, under the eye of the major. Platoons that were behind in their training were given extra drill in the evening, right up until dark. On Friday the battalion

was drilled together and the review rehearsed with the regimental band. The major, taking the part of the general, rated the platoons as they passed him.

Saturday was the first bright blue sunshiny day since the cycle began, and the weather was balmy in spite of its being mid-November. At breakfast First Sergeant Smith read the battalion order that the review would be with rifles, but without packs or gas masks, the uniform woollens—that is, dress—steel helmets—that is, tin hats—and no overcoats.

After the battery was formed, Captain Anderson gave it a swift, ten-minute inspection, and half a dozen men were excused for lack of a shave or shoeshine, which meant they would be confined to quarters that afternoon and evening.

At ten minutes of nine the captain marched the battery up to the drill field and formed it in column of platoons on the left of the battalion line. When the ranks were all dressed on the corresponding ranks of Battery C, he gave the men “at ease,” and the first long wait began. When half an hour had passed Joe began to follow with anxious eyes every group that walked along H Street, up across the drill field, or that came out of Regimental Headquarters on the corner of H and 5th. A group of photographers setting up their tripods across by the reviewing stand gave him some hope, but presently they also were waiting.

The party appearing from Headquarters was the colonel and major with their adjutants and a couple of other staff officers. With tantalizing composure they sauntered down H Street and stood with dignity behind the reviewing stand. After five minutes that seemed an hour the major and the battalion adjutant walked out to the center of the field, took position in front of the center of the battalion, and gave long and minute attention to the fitting of their

gloves. Suddenly, from out in front to the right came the major's full-lunged, preparatory command, "Battal—yun."

"Battery," shouted Captain Anderson in chorus with the three other captains off to the right.

"Atten-shun," roared the major. A thousand pairs of heels snapped together.

The major looked up and down the long line of batteries, and did a slow about face. The colonel had taken position in front of the reviewing stand. The major saluted, at the same time roaring, "Sir, the battal-yun is formed."

The colonel returned the salute, then walked back round the reviewing stand and rejoined the staff officers on H Street.

Out of the corner of his eye Joe could see a sedan coming up H Street, with the major general's two-starred red flag flying above the radiator. "Pre-sent" came the major's voice—"Ha'ms." A thousand rifles rose vertically together—One—two. The major did about face, came to salute and held it.

Descending from his car, the General must needs shake hands cordially with each of the regimental staff officers, after which his aide and adjutant did the same. When this was over the General led the way up on the reviewing stand and for the first time seemed to notice, as with an air of pleasant surprise, the two hundred yards of massed present arms spread along the field in his honor. With less of military precision than of friendly greeting he returned the salute of the major who now snapped down his hand, did about face and commanded, "Aw—duh"—long pause—"Ha'ms." Click—thud—down went the rifles together.

For a leisurely two minutes the reviewing party bowed itself into proper position on the reviewing stand, the General in the front right corner, the colonel next, and everybody else wanting to make sure that he was as far to the right as his rank rated—a matter of

much nicety, since the junior officers of Regiment and Training Center were not quite sure who of equal rank was senior among them, which led to much deferential bowing and insistence by Regiment as host that Training Center as guest take the positions of honor.

Meanwhile the General and colonel were chuckling to one another, with the air of great soldiers and old friends recalling incidents of past campaigns, though, after the social adjustments had been completed among their juniors, a close observer might have noticed a frozen impatience in the General's smile as he waited for the colonel to finish whatever confidence he was imparting. At the first possible moment he interrupted the colonel with a formal nod which included the troops across the drill field below them. Casually, the colonel turned toward the field, called out to the major, "Pass the battalion in review," and acknowledged his salute.

From now on everything went as rehearsed yesterday. The major brought the battalion to right shoulder arms and moved it off in column of battery masses from the right. Joe heard Captain Anderson's precautionary order, "D Battery, stand fast," saw the band march out on the right of the column and crash into *Remember Pearl Harbor*, saw the colors with its guard follow the band, the major and his adjutant falling into position in the interval between the colors and the head of A Battery. Then C Battery moved forward, obscuring the view of the head of the column, and a moment later came Captain Anderson's command, "D Battery forward—harch, column right—harch."

Being fifth man from the right of the front rank, Joe moved only a few steps on the diagonal before he was half-stepping alongside Al Ainsworth, watching Peewee Achs, the right guide, out of the corner of his eye, while the rest of the thirty-two men in the front rank of the platoon came successively up into line. Captain Ander-

son was half-stepping out in front, looking alternately forward and back to get his proper distance from Battery C. Presently he turned round and, walking backwards, shouted, "Forward—*harch*," turned again and moved out in the front and center of his battery.

As Joe swung out into full step with the band, glancing momentarily to the right for dress, feeling Al's elbow brush his occasionally, and just touching Amkovitch on his left as he swung his, he felt wonderfully proud and sure of himself. He noted the position of his right fingers on the butt of his rifle, and the horizontal line of his right forearm which guaranteed that the slant of his rifle was correct. Presently they did column left and marched up across the field toward H Street.

Out in front Captain Anderson had turned and was walking backwards. "Column left—*harch*," came the expected command. Next would be "Eyes right" and the General.

Both Lieutenant Landon and Sergeant Butts were now giving careful attention to the dress, and nervousness was running electrically up and down the line. The last of C Battery was passing the reviewing stand where Joe could see the General and colonel smiling and the junior officers all looking very important. The captain, now precisely in front of the stand, swung his head half round and shouted, "Eyes—*hright*."

Joe looked straight at the General as his head snapped to the right. It was easier to march at eyes right, because you could see your dress without having to glance sideways for it.

They still had ten paces to go before passing the reviewing stand. Joe felt the tension relax in the line to the left of him. Now they were passing the General so you could "lay a yardstick" along them. The captain had turned round and was walking backwards, watching for the Fourth Platoon to be past the stand. "Front," came his command. Joe snapped his head to the front and thought it was all over

but the shouting, and figured they'd march straight back to barracks.

But Joe was wrong. The ordeal had just begun. They marched around the other two corners of the field and by a column left came up into almost their original position, where they halted in line with the rest of the battalion facing the reviewing stand, and shuffled around till they were properly dressed on Battery C. Then all the respite they got was parade rest for two or three minutes. "Battal-yun"—it was the major's voice—"atten-shun."

Now Captain Anderson was close to the front rank, cupping his hands, telling the battery that they were going to be given open ranks, cautioning the front rank that they would take seven paces forward, the second rank six paces forward, and so on back to the eighth rank that would stand fast. The captain went back to his post out in front and stiffened to attention. Now there passed a long and incalculable time while a thousand men stood there at rigid attention.

What had happened was no fault of the General's. For some reason he had wanted to take a look at the battalion's morning report, and the regimental adjutant had forgotten to bring it with him. Running back to Headquarters, he found that Staff Sergeant So-and-So had given it to Staff Corporal So-and-So to copy and that Staff Corporal So-and-So—perfectly in line of duty—had gone down to Training Corps Headquarters to pick up some needed Forms So-and-So-and-So. There ensued a panicky searching throughout Headquarters, after which the morning report was duly discovered and carried back to the General who in half a minute checked the item he wanted to get straight and handed it back to the adjutant. This whole operation took just fifty-five minutes, but as far as Joe and hundreds of others were concerned it might have been fifty-five years. When finally the command came "Open—hranks,—harch," Joe didn't even hear it—at least not consciously—and found himself

moving forward only because Al Ainsworth on his right was doing so. Then he was at stiff attention again, only seven paces farther out in the field and away from the barracks.

Very dimly, but not knowing what it meant, Joe saw a group approaching the left of the battery across the field. As it came nearer, he was aware of a drop of sweat running down his nose. Then there was a buzz and a tickling. Joe didn't identify it for the rejuvenated November fly it was. Instead his eyes turned glassy and he drifted off into a world of unconsciousness. The next thing he knew there was a rhythmed scuffling in front of him. It had stopped and there was mumbling. Through a film he saw kindly eyes looking into his, then heard a strong, deep voice saying, "Colonel, we've held them at attention too long. We'll simply pass along the front rank and dismiss them."

"Very good, sir," said another voice, "though I believe they can take it."

Remotely consciousness stirred in Joe. The General and the colonel had been there. The shuffling of feet drew away. Captain Anderson's voice was saying quietly, "Men, we got specially commended for the best marching in the battalion. Congratulations! It won't be two minutes now. The general knows we've been too long at attention. What's the matter, Boom? Boom, what's the matter? Hey, Boom, this is Captain Anderson. Are you sick?"

Again Joe came partly to consciousness, but the captain saw no sign of it in his set eyes. Joe was trying to remember what was the matter, but he couldn't.

"Sergeant Edwards," the captain was calling to the cadres who were out of formation to the rear.

"Yes, sir," said the sergeant, running up and saluting.

"Take Boom out of ranks. Take him to the dispensary if necessary."



Ready to fire—seacoast rifle somewhere in the jungle.

"Yes, sir," said the sergeant. "Come on, Boom."

Joe felt himself being led by the arm, while pain stabbing him brought him back to consciousness. "Easy, Sergeant," he said. "God's sake, easy. Can't walk so fast."

Putting his arm around him, high under his arms, Edwards led him slowly round the battery that was too impressed even to smile. It was only a few rods down the ramp and across G Street to the quarters of the mess sergeant and the cooks.

Fifteen minutes later, when Joe limped into barracks, the platoon had just arrived. "Hi, Joe" — "How you doin', Joe?" — "Tough goin', kid," came from all around him.

"Sorry to be a sissy," Joe murmured as he sat down and slowly stretched out on his bunk. He had just got himself painlessly adjusted when Sergeant Butts came out of his room and squealed, "All right, men. Inspection with rifles and light packs in fifteen minutes. Get goin'."

The sergeant passed along the aisle to repeat the announcement upstairs. Joe started to get up, but sank back. Just then the captain entered, shouted "Rest" to somebody's call to attention, and went straight to Joe's bunk. "Don't get up, Boom," he said. "I just wanted to find out how you feel."

"Okay, sir," said Joe. "I'm okay, honest." He started to rise again but the captain held him down.

"No, you don't, boy," he said. "You stay where you are. You're excused from inspection. The rest of you see that Boom doesn't get up."

"Okay, sir," came from all the neighbors, and Sergeant Edwards was standing there to make it sure.

The captain was hardly out of the barracks, and everybody was putting their packs together when a faint smile came over Joe's face.

"Okay, Boom," shouted Jack Boulter from across the aisle, Jack

with his sprained ankle having lain on his bunk all through the review, "Okay, Joe, that's the way to buck for a corporal. You and me, eh, soldier?"

"Check," said Joe with a grin. But behind the grin a thought formed. He and Jack were in the same howitzer squad. Somebody was going to be permanent acting gunner corporal of that squad one of these days!

The two weeks' quarantine for the 14th Battalion had ended on Thursday, and after noon chow on Saturday more than half of Battery D formed a line halfway up the battery street from the orderly room, wanting passes for town. While most of the First Section, First Platoon, stood in this line, Jeff Browne rode off in a truck with the rest of the battalion manure detail.

The top kick turned down Jack Boulter with the opinion that if he was too lame to drill he was too lame to go to town. Joe and Al had decided to see what the camp offered before going outside. So at two o'clock Jack and Joe and Al went to a boogie-woogie concert at the Center Theatre and had supper at the cafeteria in the Service Club. Afterwards, in the big central room of the club, they were welcomed by one of the hostesses, a beautiful blonde named Miss Schultz who so profoundly affected Joe and Al that she got their complete biographies in ten minutes.

The three soldiers spent the rest of the evening in the beer garden over by the Second Regiment, which Jack had already investigated the night before. The two cadres and the civilian whom Joe had encountered on post Thursday night were there, and Jack, borrowing an ink pad from the office, provided entertainment at the bar by politely requesting the civilian to favor him with his fingerprints.

Back in barracks, they had to undress in the dark. Warmly Joe's thoughts returned to that blonde Miss Schultz at the Service Club, and he saw her looking up at him with her polite, inquiring smile.

Then he was with her in the drug store in Ledgefield, Ohio, having a banana royal. The next thing he recognized was first call.

That Sunday Joe went to church. In the afternoon he made his letter to his girl longer than usual, and he took special pains to tell her how much he missed her.

XII

THIRD WEEK

THE REVIEW BEFORE the general at the end of the second week represented the graduation of the battery from the elementary school of the soldier. From now on the foundation of military discipline was assumed, and the schedule concentrated on practical matters.

On Monday the First Platoon spent two hours disassembling the breech and firing mechanisms of the howitzers, learning the names of the parts, cleaning, oiling and reassembling them. For the rest of the week there was an hour daily of cannoneer drill.

During this week they learned to carry out completely the commands "prepare for action" and "march order." At the beginning of each period of cannoneer drill Sergeant Edwards unlocked the sacred boxes that contained the panoramic telescope and the range quadrant, and in "prepare for action" the Gunner and Number One Cannoneer seated the instruments in their brackets, setting them at normal and levelling the bubbles. It was a milestone in Joe's training when as Gunner he first took the panoramic sight from its padded box, gingerly seated it in its bracket, with the thumb screws set the rotating head and deflection carefully at zero, levelled the bubbles, and snapped to attention at his post by the left wheel.

Everybody in the squad knew that a fight was in progress between Joe and Jack to see who would be the acting gunner corporal on the great day when they first fired live ammunition on the range. Jack had the advantage of old army experience. When he jumped to

the gunner's duties he wore his most patronizing smile, and his every gesture was a magnificent flourish that yet had no lost motion in it. In his hands the panoramic telescope seemed to soar up out of its box and light perfectly in its socket without ever striking the bracket, and his centering of the scales and levelling the bubbles was a single automatic motion. Yet everybody knew that Joe was the more conscientious, and that he understood his duties at least as well as Jack did. Joe had a natural grace in his movements and the good sense never to try to do anything faster than he was ready to. Daily they saw Joe approaching Jack in speed and perfection, and however they might kid Joe for "bucking for a corporal," there was no one who did not secretly hope that when the critical day came it would be Joe, not Jack, who would have command of them and the piece.

By the end of the week the section, in either of its two preferred arrangements, was beginning to behave like a veteran howitzer squad. Everything moved smoothly, as if the howitzer itself were going through its motions at the command of the chief of section, and the men were merely part of its mechanism. In the heavy operation of limbering and unlimbering it was as if the trail itself rose lightly from the ground to the coupling with the truck, and again descended of its own volition, the howitzer rolling without lost motion into whatever firing position Sergeant Edwards indicated.

During this week there was as yet no formal distinction between cannoneers and drivers, and the whole battery continued to have instruction in the essential functions of both. Twenty-five men in the First Platoon were now qualified drivers. For two of the seven hours devoted that week to motor instruction Joe drove one of the trucks around the park or was trained in the use of the winch in front of the radiator. For the rest of the seven hours he watched parts of the trucks moving in training films or applied what he had

just seen in taking down some part of the vehicle. On Friday there was a written exam for all qualified drivers, a list of a hundred statements, both true and false, which the men had to comment on.

For two sessions of two hours each that week there was practice in aiming and "dry firing" rifles on the practice range, followed by cleaning in the open sheds behind the "ready line." Bayonets were issued on Monday, and instruction in their use—jabbing the dummies that were over by the practice range in the area west of the highway—became a regular part of physical training. There was also elementary instruction in "judo," a combination of jiu-jitsu and dirty fighting.

The chief feature that week was the speed-up in physical conditioning. Lieutenant Landon started each day with a four mile march in forty-five minutes with packs and rifles, and filled out the hour with fifteen minutes of sending everybody over the regimental obstacle course.

Twice in the cycle every trainee had to run the "close combat course"—commonly known as the "commando course"—unless he was excused from it by his officers. Battery D's turn came on Thursday of this week, each of the platoons in succession having a two-hour ordeal on this final test of their physical and nervous fitness, this closest possible approximation of infantry battle conditions.

The commando course had a sinister reputation. It was rumored (falsely) that a lieutenant had been killed on it, and (truly) that it had occasioned several minor injuries of which the most serious was the loss of a finger by a trainee in the previous cycle. The ominousness of the course was enhanced by its remaining a mystery to each new cycle till the men found themselves actually facing it. Unlike the simple obstacle courses, it was forbidden ground, the wooded hill on which it was laid out being guarded by sentries with orders to let no one enter. To the new trainees it had a kind of living per-

sonality of its own, like a dangerous monster waiting for them up there among the pines. Just marching over to take it gave a suggestion of what it was like to move into action for the first time.

Thursday was a normal, chilly, gray day. The first platoon, warned by the bulletin board of its forthcoming ordeal, set out fifteen minutes before drill call at eight o'clock. Its apprehensions were rather increased than allayed by the fact that, although Lieutenant Landon commanded the platoon as usual, the other four battery officers, including the captain, went along with them. Equipment was drill uniform, rifle, sheathed bayonets, light packs and gas masks. Taking an unaccustomed route down G Street and up Fourth, surrounded by their cadres and chaperoned by the battery officers, the boys found too much truth for comfort in Jeff Browne's whispered comment, "This is how they drive the little doggies to slaughter."

Having crossed H, I, J, K, L, and M Streets, they moved along beside the 1st Regiment barracks for another eighth of a mile, then turned in between its motor park and its chapel. Ahead of them was the dread hill, one of the few parts of the training area wooded with moderately tall pines instead of scrub. The captain trotted ahead and spoke to a sentry at a gate in the wire fence that surrounded the base of the hill. The sentry stood at port arms as the platoon shuffled through the gate. Joe smiled and closed his eyes to a slit, as he always used to do before a kick-off. They walked up a gentle slope into the shadow of the trees.

Lieutenant Landon halted the platoon and faced it to the right, confronting two small buildings. A sentry was pacing solemnly around one of them that was painted red, with "DANGER—DYNAMITE" stencilled in yellow on all sides of it. From the other building a sergeant emerged and saluted the captain with the professional assurance of the keeper of a savage tiger. The captain faced the platoon and said gently, "At ease." The command was irrelevant.

Nobody could have said whether he was at ease or at attention. Everybody was peering into the woods before them. The region itself was forbidding. It was the only part of the training area that was at once shadowed by trees and rugged with gullies and rocky escarpments.

Captain Anderson took charge of the platoon, faced it to the left, led along a path to an open area a couple of rods in diameter, halted it and faced the men to the right again. At the edge of the woods in front of them was a wall, no higher than the eight-foot one they were accustomed to scale on their own obstacle course, only it was made of logs. Well around to the left, also on the edge of the woods, was a low hurdle that also looked easy.

"Now, men," said the captain, "this wall in front of us is the beginning of the close combat course, and the hurdle there at your left is the end of it. I don't think that any of you will have trouble with them. The mean obstacles are the ones between them, in a big circle of about half a mile. There isn't any doubt that this course is the toughest show we have to go through, until we come under enemy fire. Three weeks ago there wouldn't have been half a dozen of you who could have got through it. But now, whether you know it or not, you're tough. When you get through this you'll be American soldiers, and they've always been the toughest ombres in the world. If you can lick this course you can lick anything.

"Now, the first thing to remember is that this course is the enemy. It's a German or a Jap position and you're attacking it. You've got to reach the objective that's the end of the course, and you've got to reach it standing up, mad and fighting. You can help each other over some of the obstacles, but don't stop in an attack for casualties. We'll take care of them.

"The next thing to remember is what you've already learned on the other obstacle course. It's an attack, not a race. You'll run it in

squads of four, and you are to stick together. Two, three or four men reaching the objective together are that much better than one man getting there a few seconds earlier. The course will make you mad. It'll try to fool you with a lot of dirty tricks, just as the enemy will. But take out your madness in keeping your eyes open and being quick with your bayonet, not in forcing yourself to run faster the way you would in a track meet. In the stretches just jog along the way you do on the other course and keep in line. When you approach an obstacle, size it up before you go at it, and then give it all you've got. Sometimes you'll have to crawl. Some obstacles you'll have to take at a dead run. Each squad will have a cadre to lead it and show how to take the obstacles, just the way you'd be led by an officer or non-commissioned officer in an attack. Stay behind your leader and—except for casualties—I want to see every squad come over this last hurdle together.

“The next and *most important* thing to remember is that you *must stay in the straight course*. It's wired off along the sides, and we'll stop you if you start going wrong. But remember yourself that if you do go wrong you probably *will get hurt*. If you just follow the cadre who will be out in front, you'll be okay. But if you get off the track something will happen to you. If you don't get hurt you'll be on the first sergeant's list for two weeks.

“Remember these three things: First, get mad and give 'em hell; second, stick together and follow your squad leader; third, stay in the right course.

“Now, outside of the fact that you're not going to get hurt, everything on this course is made to simulate battle conditions. For one thing, we're not going to take you over the course before you run it. Everything except these obstacles at the beginning and the end will come as a surprise, just as if you were in an attack or a raid. You'll always have a cadre out in front to lead you. The surprises won't

be sprung on the cadre leading you, because he's been over the course dozens of times and his job is to see that you do things right. Your job is to follow him and keep going in spite of anything that may bob up to scare you. Take your time. Stop now and then and look around if you need to. But *don't quit. Get there.*

"We've brought you all along today, and those who aren't going to run the course are going to have the advantage of seeing the others run it, so they'll know what they're up against when their time comes. Anyway, we haven't time to put everybody through today. There can't be more than an average of eight from a section, and they'll go through in two squads of four each. The chief of section will lead the first squad and the section corporal will lead the second squad. The other men in the section will follow along the side of the course and look on. Okay, Mr. Landon, call out the men from the First Section."

Wearing his most roguish grin, Lieutenant Landon stepped out in front. "First Section," he said in his soft, electrical voice, "attenshun." Most of the fourteen snapped to it, but Amkovitch, Barney and Browne were lost in dreams and made no move. "Okay, boys," said the lieutenant gently, and waited. Amkovitch and Barney came to, noticed the others and straightened up. "Browne!" snapped the lieutenant sharply. "Yes, sir," called Jeff, then saw his mistake, clicked his heels, and grinned.

Lieutenant Landon took a paper from his pocket. "First four," he said. "As I call your name, come up here to the startin' line and stand at ease. Leader, Sergeant Edwards." The sergeant stepped forward. "Achs," said the lieutenant. The big lumberjack slouched out of ranks and stood where Sergeant Edwards indicated. "Adamic." He stepped forward and stood beside Achs. "Ainsworth"—"Boom." Al and Joe stepped forward, completing the four.

"Second four," said Lieutenant Landon. "As I call your names,

step up here on the ready line. Leader, Corporal Storm." The corporal took his position behind the leading four. "Atski"—"Bamburger"—"Barney." The lieutenant considered his list a few moments and the corner of his mouth curled with amusement. "Browne," he completed the list from the First Section.

The lieutenant ran up to the starting line, where the first four, at Sergeant Edwards' order, had slung rifles across their backs. "All right, sergeant," said Lieutenant Landon, "all ready?"

"All ready, sir," said the sergeant. "I have instructed the men to stay ten paces behind me, and I have told them to go four abreast except where I caution them to go in file."

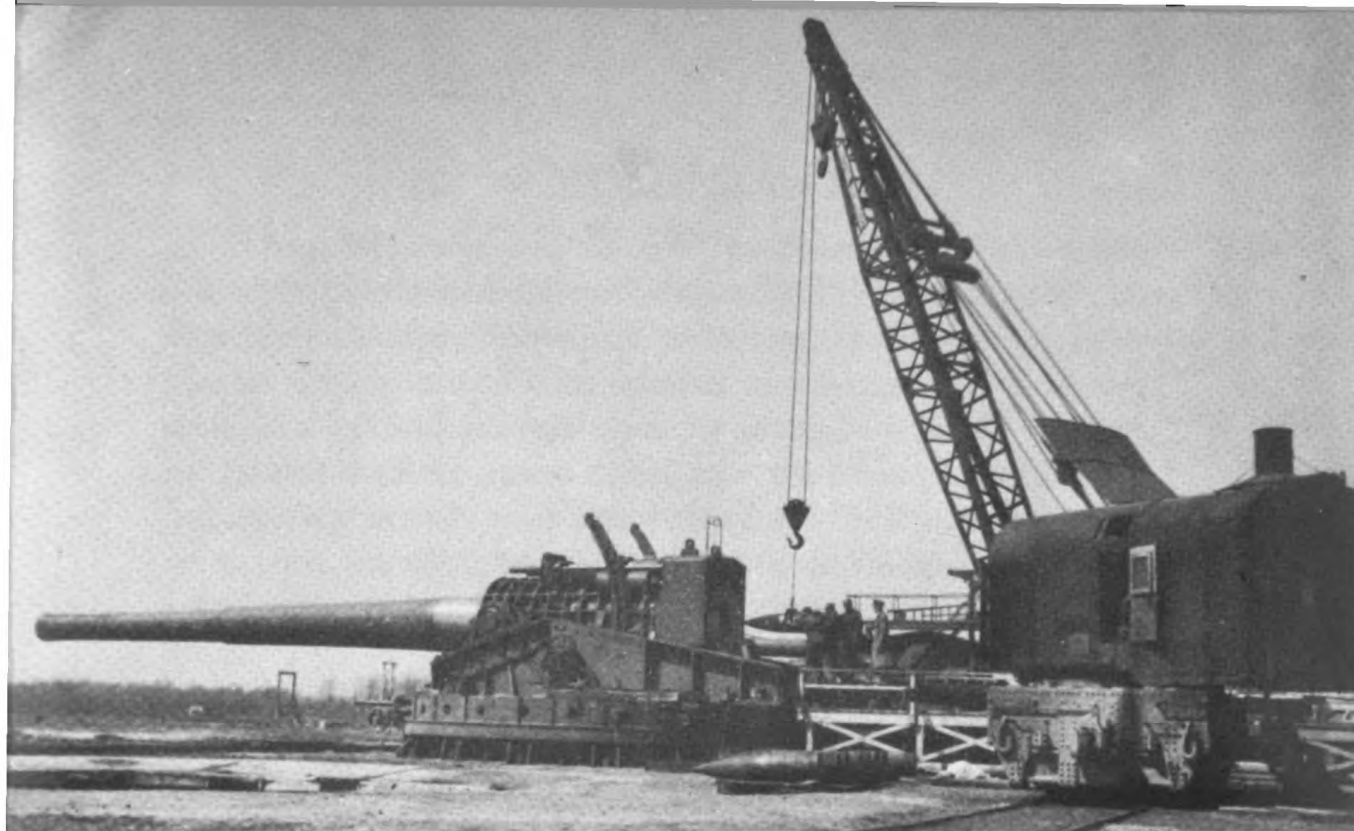
"Okay," said the lieutenant, looking at his watch. "On your mark. Get set. Go."

Sergeant Edwards loped off in the lead, and in the habit of the drill field Adamic, Ainsworth and Boom waited for Achs, their usual right guide, to start them. When the sergeant was on top of the first wall he waved them to come. Achs grunted and they jogged off in line.

The log wall was difficult only in its roughness, its unseen stubs of branches that jabbed Joe when he banged against it jumping for the top, jabs that would have made him quit for pain three weeks ago, but now he hardly felt them. Once he had hold of the top, the wall was easier to scramble over than the smooth fence on the old course they were accustomed to.

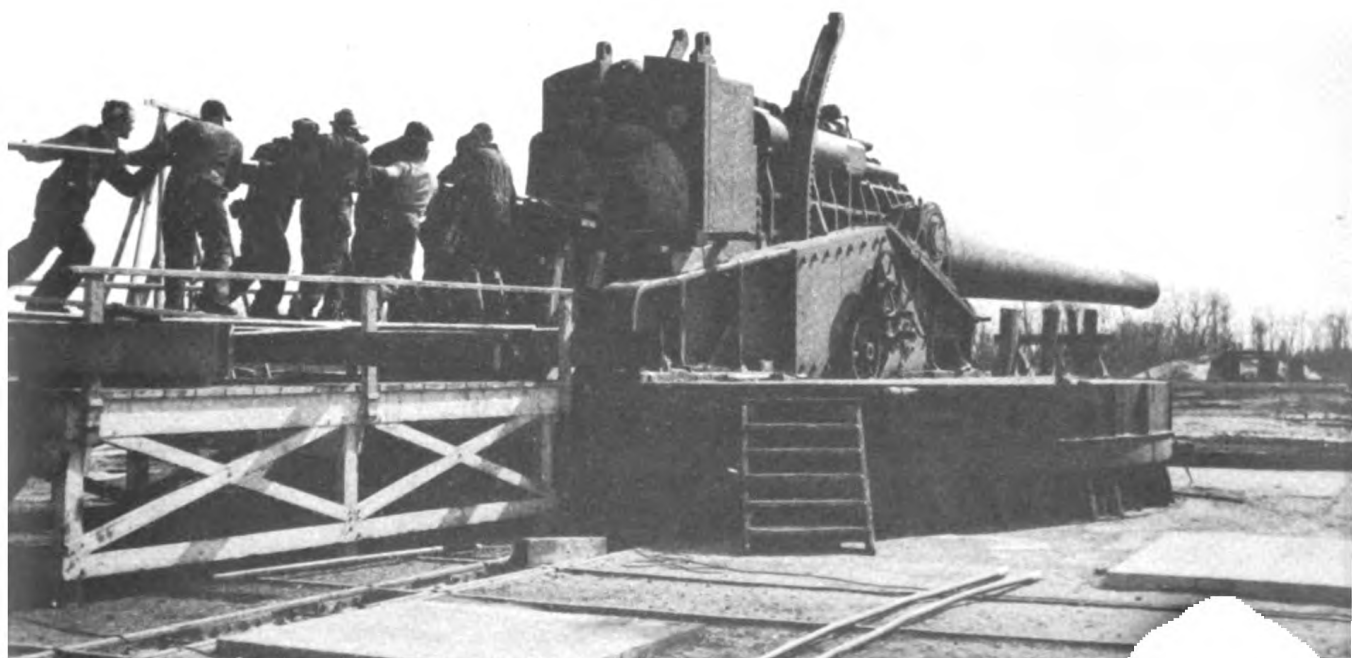
Beyond the wall the barbed wire marking the sides of the course began, leading them to the right, where Sergeant Edwards waited at the entrance to a deep trench. "Fix bayonets," he commanded as they ran up, hardly panting yet. "Follow me in file, and watch yourself. This is an enemy trench to mop up. Bayonet anything that jumps at you and look out for surprises."

He disappeared along the trench that led off to the left and was



Loading 16-inch rifle at Aberdeen Proving Ground.

Ramming 16-inch rifle by hand at Aberdeen Proving Ground.



about a foot over their heads. Because he was on that end of the line, Joe ran in next, his bayonet at point. Immediately there was an explosion on the parapet over his head. A slide of dirt poured over him. The next second something swung out in front of him and he got a hard whack on the nose that hurt and made him see stars. It was a padded bar on a hinge, swung out by a stiff spring about face high. The blow balled Joe up more than the grenade had before, knocking his tin hat all the way down over his eyes. As he pushed it up Al Ainsworth was bayoneting the padded bar over his shoulder.

Joe ran along, crouching now, for the first time getting mad. At a turn of the trench another grenade went off above him and there was another dirt slide. But this time he didn't notice it, and when the next "enemy" swung out at him around the trench corner he bayoneted it in the "head," and was only embarrassed to get his bayonet out fast enough from the bundle of burlap.

The trench came out on a steep downward slope, and Sergeant Edwards was waiting a little way below. Joe felt triumphant at having coped with the last enemy. The other three came up behind him and they jogged down the hill in line. "Watch out," shouted Adamic, and stopped. Achs, Ainsworth and Boom all tripped over a low wire, dove down hill together, and at the same moment a "shell" went off about twenty feet to their left. Joe hit the ground with a thump that would have knocked out a civilian's wind, and he got a mouthful of dirt. Instantly the three of them were on their feet. "Sheath bayonets," commanded the sergeant, disregarding the mishap.

They were by a big tree with cleats going up it. "Follow me close here," said Sergeant Edwards. "Watch how I catch the cables under my arms. That's so you won't fall if you lose your footing."

As he was saying this the sergeant was already climbing the cleats

that led corkscrew-like round the tree and took him up past one cable lashed to the trunk and between two others higher up. Joe was following close after him. The lowest of the three cables was about a dozen feet above the ground, and they looped down hill some fifty feet to another tree. They were arranged so a man of medium height walking the lowest cable could steady himself sliding along the others like railings under his armpits.

In this posture Sergeant Edwards set out, with Joe following six feet behind him, then Ainsworth, then Adamic, Achs bringing up the rear. Off to the right and below them Joe was dimly aware of faces watching. But he was good and mad now and intent on his job. He was expecting the cables to break and give them a spill.

The farther they got along the slack cables, the more all three of them swung, sometimes together, but sometimes the bottom one reversing the direction of the upper two. There was a sudden jerk on one side and Achs from behind released an expletive. Gingerly the others looked round. From nowhere Sergeant Butts had appeared and was under Achs waiting to break his fall if he tumbled. Because of his abnormal height the side cables hadn't come up under his armpits. He had missed a step and when he fell had lost hold of one side, so that he was swinging now by one armpit, groping for the other upper cable and pawing with his feet for the bottom one. Sergeant Edwards stopped the procession to steady the cables, and Achs was presently back on the track, muttering to himself. They made the rest of the way without mishap.

Sergeant Edwards waited for them all to come down the tree. "The next is a tough one," he said. "Don't start till I'm about half-way to the wall over there. Then you can come on in line and keep going. Watch how I take it. Those rafts will sink with you if you stand on them over five seconds, and what they sink in isn't pretty. You've got to keep travelling. The toughest is the jump for the wall

from the last rafts. That goo is plenty deep. There's more to it than you see."

Whatever the "goo" was, it looked and smelled like a slough of mud brought specially from a hog pen. Sergeant Edwards ran out one of four logs that led out over the goo like a crude dock, sprang from the end to one of the little rafts and moved along over the slough at a kind of jumping walk.

"Here we go," muttered Achs. Each boy ran out a log and jumped to one of the two-foot-square rafts. They started to settle the minute you hit them and they were covered with mud and slippery. There were plenty of them, but they were irregularly placed, so you had to change your course a little with each jump. The longest jumps or steps were about four feet. It was fifty feet to the low wall.

The stench of the slithering mud was suffocating. Joe had a notion that his old dancing gait for open field running would help him here. He had just lighted on his fourth raft when a dynamite mine went off with a roar about ten feet to his left, lifting hundreds of pounds of goo and plastering him with it from face to leggings. At first he felt the extra weight of it, but it slid down off him fast as he hopped along. When he mopped his face with his sleeve he rubbed some of the mud into one eye that smarted plenty from then on. Another charge of dynamite went off over on Achs's side. From then on they kept popping all around them all the time, Joe and Achs getting the heaviest doses of mud because they were on the flanks. But all four of the boys were completely covered.

"Step on it now," Joe heard Sergeant Edwards' voice. Out of the corner of his good eye he could see him sitting on the little wall only twenty feet ahead. "You have to get a start," he yelled. "It's a six foot jump to catch the wall. Get going, all of you! Boom, get going!"

Boom's trouble was that his judgment of distance wasn't too accu-

rate with one good eye, and it was agony to open the other. But he saw a zig-zag line of rafts in front of him to the wall and started dancing along them. Once he slipped, banged down the other foot on the raft and it started down with him by one side. But he managed to step to the next one, resume speed, and when the wall was about six feet away he lunged, catching the top, feeling his feet sink in the slime and pulling himself up out of it. In spite of having hesitated, he was with the others scrambling over the wall.

Already the sergeant was leading on over the rest of the slough beyond. There the stepping-stones were not rafts but floating logs that rolled with you. They started right at the wall, and were close together all the way along, so you didn't have to step far from one to the next. They covered a distance of only about thirty feet. As Joe reached dry land he heard a cheer from somewhere.

"Let's go, men," Sergeant Edwards was shouting. "Each of you take one of those tunnels, Achs on the right." As he trotted Joe rubbed a finger clean and gingerly gouged at the corner of his eye. He got out a pellet of mud. Then he was wriggling through absolute darkness on his belly, completely alone.

The tunnel was through rock and it varied in diameter from easy crawling to spots where he brushed the wall on both sides. He always touched the ceiling when he rolled on his side and raised a hand. It was damp in there, and the stink of the mud on him filled the air. In the blackness he had to grope each time before hitching ahead, else he'd bang into some jutting rock. He felt a wave of panic and tried to hurry.

He came to a solid wall in front, but found a gallery leading off to the right, so narrow he could just pull himself into it. He began to get scared, for he knew he couldn't turn around. He hit a solid wall again and turned off to the left. He could hear his heart beating and began to gasp for air. For a moment he lay still, getting him-

self calm, collecting his senses. He decided to go on. His hand, groping out in front of him, touched something soft and yielding. There was a slot of light. He shoved the soft thing farther and the light increased. He crawled out through a thick curtain covering the end of the tunnel.

The sergeant and Adamic were waiting. Al Ainsworth appeared out of the knoll they had crawled through, then Achs—the sergeant had sent Achs through the largest tunnel. Joe noticed everybody plastered with mud, but it didn't strike him as funny. "Fix bayonets," commanded Sergeant Edwards. They obeyed, meanwhile following him at a fast walk.

"All right, on the double," said the sergeant, and they started off after him. "Look out for wire now," he called, "it's a bunch of trenches. You can jump some of them, but take your time."

They plunged into a mess of wire, the sergeant leading with the slow, high, dancing step they were accustomed to use between the stakes on the old obstacle course. This was the same thing, only it was real barbed wire. Sometimes you had to step on it. Once Joe got stopped and had to retrace a few steps. Then he was running along a trench, then across a series of them. Alongside Ainsworth he came to a wide one with a sliding take-off. Together they stepped down into it. One of those dummies swung out from the wall just in front of Al, who was so mad he knocked it off its hinges with an upswing of his rifle butt. The trenches were a labyrinth and there were plenty of dead ends. If any grenades went off, Joe didn't hear them.

"All right, men," said the sergeant as they crouched together at the exit from the last trench, "the next one is bad. Sling rifles."

As they did this he continued to talk. "You've got to take it at a run. That wire on the left is no fun to drop into if you miss the wall, and the ramp's too steep to stand on. It's all speed and you only get one chance. Here goes."

In front of them was a steep board ramp, rising at about a forty-five degree angle. The right half of the bottom of it was open, the left half blocked with a big tangle of barbed wire. On the left of the ramp was a log wall. The idea was to run up on the right, veer over to the left with your momentum, and catch the top of the wall without dropping into the wire.

They watched the sergeant go. At the last second, just over the wire his foot slipped, but he managed to catch the wall by a lunge and pull himself up and over. He dropped to the ground and waited for the rest.

All four started at the same moment. "Steady," came the voice of Captain Anderson from somewhere. "Take it from right to left."

Achs lit out with six-foot strides and more speed than anybody thought he had in him. He was able to reach over to the wall without having to veer across the wire at all. But when his feet let go they swung down into the wire, and he had to do a lot of heavy kicking to get loose and drag himself up.

Adamic got over without mishap. Ainsworth, being short, had a closer call than Sergeant Edwards, catching the wall with only one hand. This kind of light foot-work was nuts for Joe, and he executed it with a grace that got applause from the sidelines, though he didn't hear it.

"All right, men," called Sergeant Edwards, trotting off through the trees the minute Joe dropped from the wall. "On your toes now. Follow in file at three paces and watch me carefully. Out the bridge there, and down the ladder in the middle. It's hard footing and a fifteen foot drop. Keep your heads."

Already he was making his way out what looked like an unfinished crude bridge, two pines dropped across a ravine about eight feet apart, with crosspieces nailed at irregular distances and angles, so that sometimes you could step from one to the other and sometimes you had to go out to the edge and walk the log a little ways.

"Lemme go first," said Joe. He started out after the sergeant, following him exactly and finding the going not so bad. Al was next behind him. The sergeant reached the middle of the bridge, after which there weren't any more crosspieces. Instead, a crude ladder stood down into the ravine, two small trees with a few rungs nailed between them. Sergeant Edwards started down the ladder, Joe close behind him, waiting his turn, thinking this was pie. Suddenly an acid smell filled the air, and smoke poured around them from somewhere in the ravine. "Gas," shouted Sergeant Edwards below.

Joe could see absolutely nothing. He was balanced precariously with one foot on a crosspiece and one on a main log of the bridge. He managed to get his gas mask on, then felt ahead with one toe and one hand for the ladder. As he started down he felt Al's foot groping down through the smoke and tapping his tin hat. He could see nothing of the ladder he was descending. The lower half of it had no rungs at all and he let himself slide down. At the bottom he could just make out the sergeant, who likewise had put on his mask. Al arrived, and Adamic. Now came a familiar voice above them on the bridge. There was a commotion and a blow on the ground. Achs loomed through the smoke, and Sergeant Edwards led them off at a trot. They came out of the smoke. The sergeant took off his mask and commanded, "All clear." Achs was grinning. "Too hard to find that ladder, so I jumped."

They trotted off, their rifles still slung. "The next one isn't so bad," called Edwards over his shoulder, "if you take it fast. Run straight up the ramp and jump for the bar beyond. Swing out on the bar and let go. Be sure you swing out. There's wire straight under the bar that isn't good to sit in. When you're down, keep right on going and dive over the next wire and keep down. I'll be waiting for you after you dive over the wire. Come in file, right to left."

The sergeant took off at top speed, dashed up the six-foot height of the ramp, jumped to the horizontal bar that was just visible over it and disappeared. Achs and Adamic followed him easily, but Ainsworth swung out too far from the bar and landed with a big bump sitting down. Joe made a perfect landing beside him, almost dropping on him. Together they jumped up, got a quick start and dove over a low tangle of wire in front of them, landing on the ground with a couple of thumps that would have knocked out a civilian.

The other three were waiting on the ground. In front of them was a solid barrier of barbed wire, about a hundred feet wide, though from the ground there was no telling how far it stretched. "This is the McCoy," said the sergeant. "We're going to crawl under it, and it's a long pull. Most of the way you'll have to crawl on your back and lift the wire with your hands. Follow me close and keep in line. Dress center. While you're under the wire, *keep down*. If you show anything above the wire you'll get hit. If you show your head you'll get killed, and that's no baloney. This is action. When you reach the other edge of the wire stop and fix bayonets before you come out. I'll be there to remind you. *Keep going, but don't get ahead of me, and stay in line. Okay, remember, keep down—flat down. Come on.*"

He set out under the wire with the swimming, elbow motion they had learned on the other course, and the line of four followed him. When they were all under, the sergeant was already over on his back, parting some strands with his hands and wriggling through with his shoulders. Joe came to a similar barrier and was doing the same thing when straight ahead of them in the wire four "shells" went off in quick succession. Joe felt the earth tremble, heard the dirt dropping and smelled the smoke. Then all hell broke loose. There were a couple of single rifle shots and the ping of bullets so

low over them that they seemed to be aimed at them. Shells began banging regularly on both flanks. *Rat-t-t-tat—Rat-t-t-tat—Rat-t-t-t-t-t-t-t-t-t-t*—a nest of machine guns began plugging live ammunition low over the wire—*ping-p-p-p-ping-ping-pinnnnnnng-p-p-p-ping*—the bullets whined like something right in Joe's head—*boom—boom—boom*—the slow shells kept pounding on the side.

Joe wriggled along on his back, separating the wire without daring to lift his hands more than a few inches. A barb hooked in his pants while both hands were occupied with a strand over his face. He tugged and let his pants rip.

He reached a place that was open five yards ahead, and rolled over on his belly. *Rat-t-t-t-t-t-t-t-t-t-t-pinnnnng-p-p-p-pinnnnng—boom—boom*. Joe shoved back his tin hat and pushed his face into the ground, ploughing it up with his chin as he hunched forward with knees and elbows. "Stay in line," shouted Sergeant Edwards off to his right.

Joe gathered his senses and waited till he was dressed on Al Ainsworth four or five feet off to the right. He felt better, being in contact with the others. When he started again he ran into more strands in his way and rolled over on his back. He went through a little crater where one of the first shells had gone off.

Now the dry dirt changed to mud, but Joe didn't mind that. Frequently he glanced to the right at Al and Sergeant Edwards, the latter a little way out in front. Sometimes he could hear Achs grunting, farther off on the right. It seemed as if he wriggled for miles, sometimes on his belly, sometimes on his back. "Halt," called the sergeant suddenly. "Fix bayonets."

Joe realized that the shells had stopped and the machine-gun fire was behind them. Gingerly he reached over his shoulder and drew out his bayonet. "There's plenty of enemy ahead," the sergeant was saying. "Charge with all you've got, right through them. Don't



90 mm. and 3-inch anti-aircraft used for instruction purposes at Aberdeen Proving Ground.

90 mm. anti-aircraft battery with director controlling fire.



touch them with your hands, only with your bayonets and rifle butts. Get mad and let's see you move fast. Okay—let 'em have it.”

The sergeant was at the edge of the wire, and he jumped up and charged ahead, followed by the others. In front of them was a line of swinging dummies, some facing them, some held back and released in front of a man just as he came up. They ran at them with bayonets at point. Achs ripped the burlap off every dummy he struck and got some back whacks from the bare wood. Al Ainsworth trusted the up-stroke of his rifle butt. None of them was expert with the bayonet, nor would their training with it ever equal that of the infantry. There was a great whacking and grunting and cursing as they fought their way through the enemy line and a second line behind it. On the other side the sergeant gave them no rest. “All right, boys, you can race for it now, over the trench, across the logs, up the hill and over the hurdle to the objective. Let's go!”

Joe hardly knew where he was going, but he cut out at full speed, carrying his bayoneted rifle at a proper port. Because the sergeant did it in front of him he jumped a trench without caution, then found himself running out an eight-inch tree about two feet above water that looked deep. It was a good thirty feet to the other side. He heard a splash. Achs had gone in. Glancing over at him, Joe lost balance himself and was glad of his rifle for a balancing pole.

He went on gingerly. He was tired and panting now. On top of his fatigue, the pent-up nervousness of the recent battle experience under the wire hit him when he was over about the middle of the pond. Suddenly his reflexes failed and he didn't know where he was or what he was doing. He stood stock still in a trance.

He came to with astonishment, to find himself teetering on a little log over water about ten feet from shore. For a moment he swung his rifle wildly, and let go in time to jump into the water instead of falling into it. It was less than knee-deep. His senses re-

turned fully and he got mad at himself. He stepped back up on the log and ran along the rest of it to shore.

The rest were running up the hill, Achs ahead. He had cheated. After he fell in he had waded the rest of the way and got to shore first. Joe felt the same kind of exhaustion you always felt at the end of a game when you were behind, and the same kind of guts that drove you on then rose in him now. He let go and started up that hill with all he had left. He had the heavy feeling of not moving at all, for all his effort. He streaked by two figures and saw a low hurdle in front of him. As his legs scissored out and he sailed over it there was a crash. He raced on, crossed the finish line first without knowing it, and was grabbed and stopped by Sergeant Edwards. "Okay, Boom," muttered the sergeant. Then he shouted, "Nice going, all of you." Achs had crashed the last hurdle and was picking himself up. He and Al and Adamic came up together. From somewhere there was a loud cheer. It was from the rest of the platoon.

Joe's panting lessened. There stood Captain Anderson and Lieutenant Landon, both beaming at him and the others. "Fine work, all of you," said the Captain. For the first time Joe realized that it was over. A tremendous elation rose in him and he wanted to yell. Insubordinately he stepped up to Lieutenant Landon. "How long'd it take us?" he demanded. "Fifteen minutes," said the lieutenant. "Mighty good going for the first time." "Holy smoke!" said Joe. He would have been less surprised if it had been fifteen hours.

He looked around at Achs, Adamic and Al. Their helmets, face and uniforms were completely black with mud, all but Achs's legs below the knees that he had partly washed off in wading out of the pond. The other four were likewise just coming to. On a common impulse they all guffawed, came together and slapped each other's backs. There was too much to say to start reminiscing at once. Sergeant Edwards ran up with a pair of blankets. He threw one around Achs

who had fallen flat in the pond. He handed the other to Joe. "Keep that on, Achs," he said, "and, Boom, you'd better wrap it round your legs when you sit down." Over on the starting line Lieutenant Landon called out, "On your marks. Get set. Go!"

The next four loped off, Atski, Bamburger, Barney and Browne. "Come on, men," said Sergeant Edwards. "You're going to be audience this time." Along with the six who were not going to run the course today, he led them to a little hill from which they could see everything.

The commando course that had seemed miles long was, as the captain had said, less than half a mile, and it was laid out in a rough circle around this hill. Even sitting down, Joe could see it all, except where the men were out of sight in the trenches or tunnels. He saw that it was in fact as safe as it could be made, at the same time having enough threats of danger to test the men's guts. He saw the really impenetrable barbed wire that fenced it on both sides. He saw that the "grenades" that went off when the men were going through the trenches were really a good way back from the edges of them, so they couldn't possibly do more than shower them with dirt and pebbles. He saw that the mines in the slough were fifteen feet out from the edge of the line of rafts, so that it would be physically impossible for a man to get near them, and they were really light charges of dynamite two or three feet down in the mud, so that nothing but the mud itself could touch the men. In the long crawl under the wire the "shells" that went off in front of them at the beginning were on the far edge of the wire from the start, and they likewise were buried so they could only throw up a little dirt. All the other "shells" went off outside the barriers at the edge of the course and were likewise little more than noise. Each of these dynamite charges was set off individually by a cadre with a battery along the side of the course, so they were perfectly under control.

The machine-guns were the real thing and they were operated by cadres at the foot of the hill that was the grandstand. They fired four or five feet above the wire into butts on the other side.

It was going to be fun watching the second four do the course.

At four o'clock on Friday afternoon the captain had the battery roll shelter rolls, tag them and pile them by sections in the street for the trucks to collect. Then he had the men form in raincoats and marched them out into the country. It was a dreary day, as usual, with occasional light rain squalls spattering the gray soil and the dry leaves of the oak scrub. From time to time during the march the captain signalled "gas" by two blasts of his whistle.

They marched farther into the country than their speed marches had ever taken them, leaving the main road and heading off into strange territory on a by-road that wasn't more than a wheel track. After about an hour they passed an outdoor latrine, saw the trucks waiting ahead, and beyond a couple of shacks and a tent awning.

The captain halted the battery. "This is the bivouac area, men," he said, "and we're going to spend the night here. In about half an hour you'll hear chow call. Line up with your mess kits at the cook shack over there, and after chow line up and do a good job on cleaning your mess kits. After that you're free to do what you please. We'll call off the war and try to stir up some entertainment. The Fourth Platoon will post a guard, and no one is to go outside the line of sentries. The latrine is over there, and anyone befouling the bivouac area will be punished. At the foot of the hill below the mess shack there's a stream to wash in, but don't drink any water except what you have in your canteens. If you need more, you can fill your canteens from the cans at the mess shack."

He called the battery to attention, gave it open ranks, and had the men pitch shelter tents formally, in as straight lines as was possi-

ble in the scrub. Jack Boulter managed it so that he pitched shelter tent with Joe whom he always delighted to patronize with his military knowledge.

Jack knew all about spreading one of their raincoats under them on the ground and holding the other in reserve against rain. Also he knew about scratching a trench around their tent to drain off at the lowest point. Meanwhile the cadres were instructing the others. Because of Jack's knowledge, he and Joe got their tent up and their blankets spread before anyone else, their haversacks hung from a scrub oak in the platoon "street," their rifles stacked properly with Ainsworth and Browne next door. Jack cautioned Joe to bring along his mess kit when they went down to the stream to wash. On the way they passed the tent awning under which the officers were going to eat, and the big cans of soup and stew already steaming on the grills over the trench fire behind the little cook shack. When somebody blew "soupy" on a real bugle Jack and Joe were the first in line.

This was the battery's first experience in eating from its mess kits, and Joe soon saw the importance of having been early in line. He and Jack were back at their tent with their soup, stew, ice cream and cake when the impatient line that had formed behind them began to proclaim its hunger with a rattle of mess kits which grew so loud that the top kick himself came out of the mess shack, where the cadres were eating, and put an end to it. The K.P.'s brought chow to the officers in their little mess hall of a table and benches under the tent awning.

Having been the first to eat, Jack and Joe were the first finished, and the first in the line at the incinerator for garbage and the successive cans of boiling water where they washed their kits. Afterwards Jack led Joe back to the stream and showed him how to finish the cleaning job with sand for abrasive.

After chow Joe and Jack, and one by one the others of the section,

sprawled on the ground by their tents, smoking while darkness fell, lanterns appeared, and the Fourth Platoon posted its informal guard around the bivouac. Presently Captain Anderson's voice was heard. "Now we're going to have a little sing and some stories for anybody who wants to come. There's a fire starting up here. Everybody who wants to come, bring a piece of wood for the pile, and pretty soon we'll have a hot blaze. If you'd rather turn in, that's okay."

XIII

FOURTH WEEK

AS THE SECOND week of the cycle had ended instruction in the elementary school of the soldier, the fourth week marked the end of elementary artillery training. It was the last week in which everybody got approximately the same instruction in driving and in serving the howitzers. On Monday and Tuesday the entire battery went on road marches with the trucks, each truck carrying a section. At the frequent stops the drivers were rotated, so that at the end of the two days every man in the battery had driven a truck in column, with practice in starting and halting together, keeping proper distance and turning at road markers, using the appropriate arm signals. Also there were training films with recorded lectures in the Rec Hall, showing various ways of pulling through bad going—the use of a bar chained to a wheel to make it vault slowly over an impassable hole, the use of the winch to pull out mired trucks, and of cables similarly attached to trees or bars out in front and being slowly wound up on the rear axles, drawing the vehicle forward.

On Monday and Tuesday part of the periods of rifle training were given over to instruction in behavior on the range, including loading, unloading, keeping of score books, the functions of “coaches,” and the numerous safety measures. Wednesday was to be the great day when the trainees would have their first chance to shoot off something, if only their Springfield rifles.

The battery had special reveille at 4:15 and breakfast at 4:30. At 5:15 it was formed in the darkness, marched down to F Street, divided into “orders” of thirty-five men each and crowded into

trucks, two trucks to an "order." Joe later understood that this division was due to the battery's having thirty-five targets assigned to it. At 5:40 the road march began, and while they were on the way to the range the gray dawn came.

They reached the range a few minutes after six, and the next hour was devoted to piling haversacks by sections and inspecting rifles, while numerous special details carried ammunition boxes from the supply trucks and opened them. At 7:15 the first order was formed and marched in file to the ready line. Here it was divided into a right wing of seventeen men and a left wing of eighteen men, and given "at ease."

Immediately behind the ready line were the rifle racks, the cleaning tables and the two master score sheets. About fifty yards in front was the firing line, with its low stakes numbered from one to thirty-five, corresponding to the thirty-five numbered targets that stood white against an embankment two hundred yards beyond the firing line. Off to the right the line of targets extended indefinitely. There must have been hundreds of them. But Joe knew they were going to use only the first thirty-five. In the center of the area between the ready line and the firing line was the ammunition supply tent. At the right of the same area and at the right of the right wing was the right wing ammunition depot. Just to the left of the ammunition supply tent and at the right of the left wing was the left wing ammunition depot. In front of the ammunition supply tent and immediately behind the firing line was the control tower. Signal Corps details were still completing the telephone lines, of which there were five between the firing line and the pits where the targets were, one from the control tower to the pits and one from the control tower to the range central.

At 7:30 the ready line was called to attention and marched at double time to the firing line, the right wing filing up past its ammunition depot tent (without drawing ammunition), doing

column left at the firing line and proceeding in to occupy positions 19-35, the left wing likewise filing up past its ammunition depot (without drawing ammunition), doing column left at the firing line and occupying positions 1-18. Joe was at post 27, in just about the center of the right wing. Two hundred yards out in front he saw his target, with a huge "27" over it. There was a cadre for every five riflemen along the firing line. As soon as the men were identified with their numbered posts corresponding to their targets, the cadres told them to lie down and get accustomed to the position. The first firing was to be ten rounds, prone.

Meanwhile the "second order," which was to be "coaches," had been lined up on the ready line without rifles, divided into right and left wing, and marched in file up past the two ammunition depots, where they drew ten rounds of live ammunition each, and so up to the firing line where one of them was assigned to each rifleman. As soon as the second order had left the ready line as coaches, the "third order" was marched to the ready line and given "at ease." These first three orders were to alternate on the firing line until they had all finished their allowance of fifty rounds per man.

As soon as the coaches were in position behind the riflemen, the whole firing line was called to attention by Captain Anderson in the control tower. Then, "take prone position"—the riflemen lay down again facing the targets, the coaches on their right, lying at right angles to them. "Coaches give ammunition to riflemen." "Load." "Commence firing." The command was given by schedule, at precisely 8 o'clock.

In a second half a dozen shots went off together, then in a ripping blast the rest of the thirty-five. After each man fired a round he raised his closed fist and the telephone for his group told the pits to "mark target." His target ducked down behind the bank where it was repaired with paste and a patch and immediately raised again,

one of the men in the pit putting up a disc on it to mark the shot, a white disc for a bullseye (score 5), a red disc for the inner circle (score 4), a white disc with black cross for the outer circle (score 3), a black disc outside the circle but on the target (score 2). During the marking of the target the coach picked up the empty "brass" of the fired round. The rifleman entered his score in his score-book, and resumed firing.

As soon as a rifleman completed his ten rounds he leaned his rifle on the peg in front of him, and he and his coach stood up, facing the rear. When all were standing Captain Anderson commanded in succession: "Cease firing"—"Unload"—"Coaches pass brass to riflemen" (the coaches handed over the ten empty shells)—"Coaches inspect rifles"—"Riflemen only, attention"—"Right face"—"Column left, march"—"Double time, march." The right and left wing riflemen trotted back past the ready line to the rifle racks where they handed their rifles to waiting cadres, filed up to the two respective ammunition depots, where they turned in their ten rounds of empty brass (proving that all had been fired), and drew ten rounds of live ammunition with which they returned to the firing line as coaches.

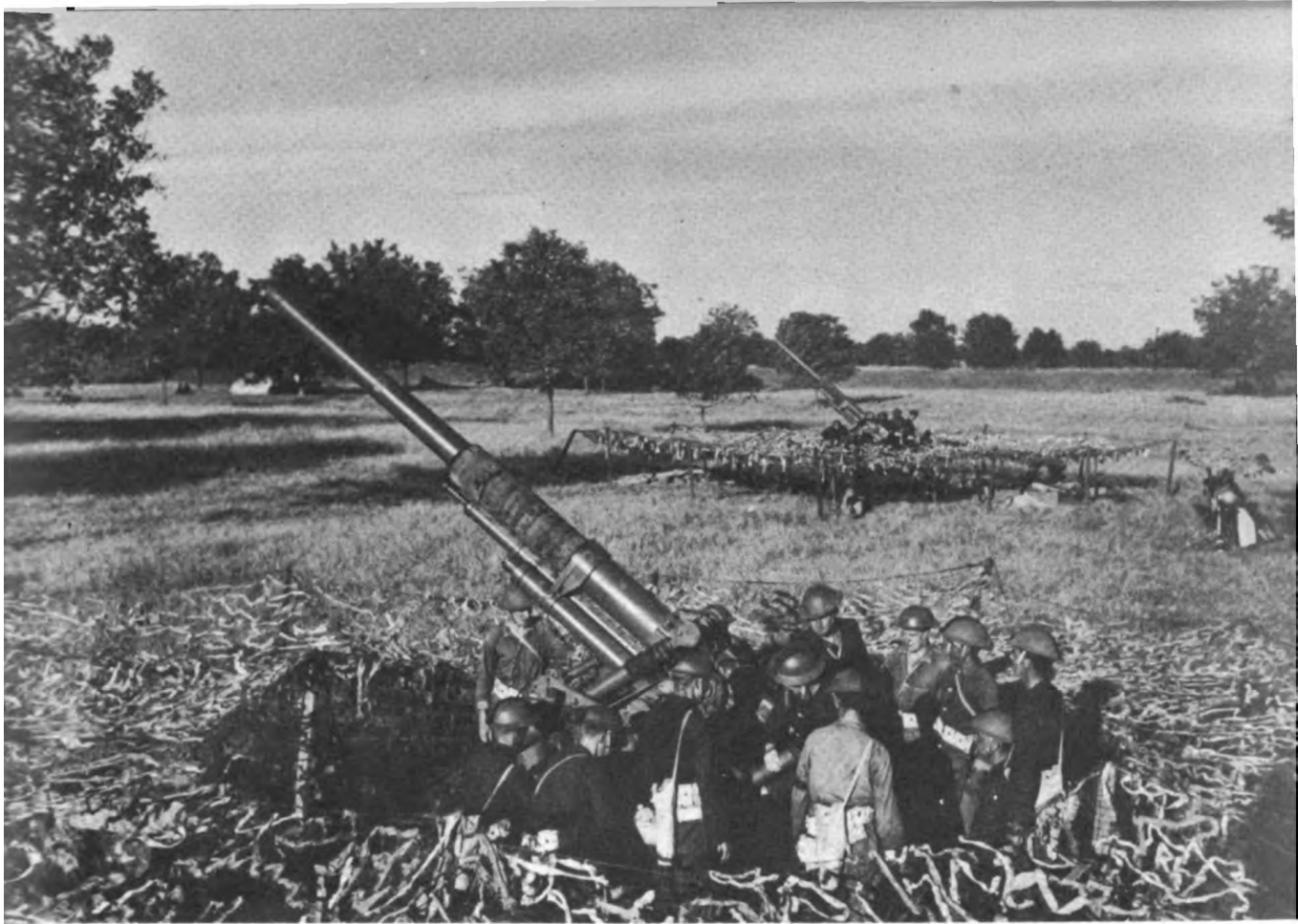
Meanwhile the two other orders of thirty-five men each had likewise been in motion. Following the riflemen the second order, that had acted as coaches, filed by the same route to the racks, drew their rifles from the cadres and took position on the ready line. At the same time the third order that had been on the ready line filed up to the firing line exactly as the first order had done in the beginning, and were waiting when the first order arrived as coaches.

Thus the clock-like cycle continued without a break, from ready line to rifleman to coach to ready line to rifleman to coach, until everybody in the three orders had fired thirty rounds prone, ten sitting, five kneeling and five standing.

When the first three orders had completed their firing it was time for early chow, which had come out in the cook trucks. During the

afternoon the rest of the battery fired, while those who had fired in the morning cleaned rifles. From three to four the whole area was minutely policed. At 4:30 the battery jammed into its trucks again and returned to camp. Joe had the highest score for the first platoon, which increased his already high standing. If he kept it up he would be due for a marksman's medal, perhaps an expert marksman's medal.

During this same fourth week the battery completed its elementary training in the service of the piece. On Monday during the first hour of its two-hour period of cannoneer instruction, the first platoon got its first instruction in the use of the sights and the range quadrant. The whole first section, including those destined to specialize as drivers, rotated in the positions of gunner and cannoneers number one, two, three, six and seven. In the position of gunner every man learned to set the simple direct sight at a deflection and range announced by Sergeant Edwards, to sight for direct fire on a target somewhere over beyond Fifth Street, bringing the cross hairs in the sight on the target by the use of the traversing handle to swing the big tube right or left and the elevating handle to swing it up or down, to level the sight bracket bubble, to recheck both the laying and the bubble, stand clear of the piece and call "ready." Then a changed range and deflection would be given for direct fire using the panoramic sight: Number One would set the range and the "angle of site" on the range quadrant on his side of the howitzer, level the bubble by elevating the piece with his elevating handle, stand clear of the piece and call "set"; the Gunner would set the deflection on the panoramic sight, traverse the piece till the vertical hair of the cross hairs in the sight was on the target, level the bracket bubble, recheck both the laying and the bubble, and call "Ready" when he heard "Set" from Number One. With each new pair at Gunner and Number One Sergeant Edwards would change the data



3-inch anti-aircraft with camouflage swung back for action.

and the target, sometimes so much that the new deflection would be beyond the traverse of the piece and the Gunner would have to command "trail right" or "trail left," when Numbers Two and Six would carry the left trail and numbers Three and Seven the right trail till the Gunner, watching the target and signalling back with his hand, would drop it, indicating that the piece was approximately on the target; the men carrying the trails would drop them, and the Gunner and Number One would complete the laying in the ordinary way.

When Joe jumped up to actually lay the piece as gunner, he felt his heart beating as it hadn't done since that far-off day in the first week when Sergeant Edwards and Corporal Storm had first uncovered the howitzer before the section of rookies. "Target, base of that pine tree standing alone to the left of the battalion machine shop," came Sergeant Edwards's voice. "Deflection, one-zero. Range one-five-zero-zero." Joe set the data on the simple sight, grasped the two laying handles, started the traversing handle the wrong way, swinging the tube a little to the right, swung it back till the vertical hair in the sight was on the base of the pine tree, depressed the tube with the elevating handle till the horizontal hair was on the same point, levelled the bubble, rechecked the laying which required a minute change with both handles, snapped to attention outside the wheel of the howitzer, and called "Ready." Sergeant Edwards came up, checked the laying and, this being the first "problem," had every man in the section come up to see how Joe had the cross hairs exactly on the base of the target.

"With panoramic sight," the next problem began. "Target, that M.P. shack eight hundred miles to the left on the highway. Deflection, six-three-five-zero. Range, one-eight-zero-zero."

Joe hesitated a moment, having the right hunch, glanced at Sergeant Edwards, then set the deflection and range and started to traverse the piece to the left. "Wait a minute, Boom," called Ser-

geant Edwards. "You had the right idea first. Can you lay on a target eight hundred mils to the left?"

"No, sir," said Joe.

"What does the six—three—five—zero deflection do to the eight hundred mils?"

"Makes it seven hundred and fifty, sir."

"Can you lay on a target seven hundred and fifty mils to the left?"

"No, sir," said Joe.

"Check. Then, what do you do?"

"Trail right," commanded Joe, jumping in between the trails so he could sight roughly along the tube. Achs and Amkovitch picked up the left trail, Browne and Boulter the right trail, and carried them to the right while Joe waved them on with his hand till the howitzer was trained roughly on the M.P. shack, when he dropped his hand, jumped back over the left trail, had to traverse back to the right about twenty mils, levelled the bubble, rechecked, waited for Bamburger's call of "Ready" and shot up his hand. Again the sergeant rechecked the laying, and again the section filed by to see the vertical hair on the target, the bubble levelled, number one's range quadrant set at one—eight—zero—zero and his bubble levelled.

Following this hour, Sergeant Butts gave the platoon a half hour lecture on the mil system, while the second platoon was on the guns. The talk was outdoors, with a blackboard over by the ammunition shack in the gun park. Sergeant Butts explained how the artillery measured azimuth or deflection angles in mils instead of degrees. A mil was a very small angle subtended by a yard at a range of a thousand yards. There were 6400 mils in a circle and they were always measured clockwise. Thus 1600 mils was a right angle to the right. 3200 mils was directly to the rear. 4800 mils was a right angle to the left. The simple sight, used for direct fire only, was calibrated for deflection of only twenty mils each way, because it was only for

taking care of windage, as in the service rifle. But the panoramic sight permitted a setting anywhere around the full circle. That was because the panoramic sight was for use in indirect fire, when the target was not seen and the guns were laid by selecting an "aiming point," usually somewhere in the rear, measuring the angle around the gun from the aiming point to the target and giving the gun this deflection which, when the sight was on the aiming point, should bring it on the target.

This was the section's introduction to the real mystery of artillery firing. "How do you know this here angle from this aiming point to the target?" asked Jeff Browne.

"You get it from a map," said Sergeant Butts. "If you haven't a map, you calculate it from data sent back from the observation post where they can see the target. Usually you use both the map and the O.P. The data is telephoned back from the O.P. to the battalion control center, where the angles and ranges are figured out almost as fast as the data comes in. The twelve howitzers of a good battalion in position can all get firing within a minute and a half of the time the data comes back from the O.P. They claim an artillery brigade of three light battalions and one heavy can all get going on the same target in five minutes. But all you have to know is the general idea that when you get a deflection for indirect fire, what it is is the angle between whatever aiming point they've given you and the target that you can't see. Your aiming point may be a tree or something on the horizon. Or it may be the executive officer's aiming circle that he sets up about fifty yards behind the battery. Once you're in position, the aiming point is usually the aiming stakes that each gun carries. You'll be using them by the end of this week."

Sergeant Butts closed the brief lecture with a reminder that ranges were measured, not in miles or in angles of elevation, but in yards. The angle of site that Number One set on the quadrant had nothing to do with the range, but was to offset any difference in elevation

between the howitzers and the target. "Site 300" meant they were on the same level. A site above 300 meant that the target was above the guns, and below 300 that it was below the guns.

Following this half hour Sergeant Butts gave a second lecture, this time on ammunition. From the ammunition shack he brought out one of the dummy shells that would be used for gun drill and were all the ammunition the shack contained. Putting the dummy on a tarpaulin, he broke it into its two main parts and explained them. First, there was the projectile proper, with the fuse screwed into its nose, to burst on time, or with a delay, or on impact, according to the type of fuse being used and the setting by Number Three with the fuse setter. Sergeant Butts got a fuse setter, took it from its case and showed how, by seating it over the fuse and turning it you could make any setting required. He showed also the mechanism inside the fuse by which it was not "armed" for firing till the rotation of the projectile in the tube had released certain gadgets by centrifugal force. And he showed the copper rotating band on the projectile by means of which the rifling in the gun gave it the twist that armed the fuse and kept the shell steady in flight.

The second part of the round was the brass cartridge case that fitted over the base of the projectile and contained the propelling charge. As the round came from its packing box there were six bags of powder in the cartridge case, and by removing any number of them it was possible to use any of six propelling charges. The normal charge was charge five. The bags in the cartridge case were numbered in reverse from the top down. When you split the round the charge on top was numbered six—if you were going to fire charge six you didn't have to split the round at all. If you removed the bag numbered six, which you usually did, the next bag under it was numbered five, which meant charge five. And so on down to the lowest bag numbered one. If you took everything out but that, you would be firing charge one, which was a very weak charge, used for

lobbing shells over a hill or a building at a target close behind it. After you had taken out the required number of bags, leaving the charge you were to use, you forced the cartridge case back on the projectile, and number four carried it to number three to set the fuse. There was no one in the section so dumb that they didn't get the idea of the six propelling charges.

For an hour on Tuesday they practiced the complete service of the piece, with dummy ammunition and still using only direct fire. As in the beginning of cannoneer drill, Sergeant Edwards made them go through all the motions slowly, and kept each arrangement of the gun squad unchanged until it had learned its duties. This meant that they got through only the two best arrangements, one with Joe as Gunner and the second with Jack Boulter as Gunner. After "firing" a dozen dummy rounds, Joe's squad was able to perform its duties with slow precision.

On Thursday, the day after the firing of rifles on the range, the gun drill was continued and everybody in the section had a go at every post. During the two-hour period on Friday indirect fire with the panoramic sight was introduced. This really added nothing to Joe's duties as gunner. Instead of laying on a designated "target" out in front, he trained the panoramic sight on some "aiming point" at the rear. But when the piece had "registered" with a few dummy rounds, Sergeant Edwards added a new feature. He carried the aiming stakes back in the park and set them up in line, one about twenty yards behind the other, Joe giving him the alignment with the panoramic sight and afterwards reading the new "base deflection" which the sergeant recorded in his book. He explained to the squad that this transfer from a distant aiming point to the aiming stakes as soon as the battery was registered was normal practice because the aiming stakes, having little lights on them, were visible at night. On Friday also, Sergeant Edwards drilled the section in the methods of firing as part of the battery, salvo fire when the pieces



Range finder.

fired successively, and volley fire when they fired independently and as fast as they could. There remained only a couple of minor frills, and the section would know all its business as a gun squad.

On Saturday morning the cannoneer instruction of the week was reviewed by Lieutenant Landon who, in his proper function as executive officer, drilled the whole first platoon as a firing battery. Standing back of the guns, in the interval between the second and third pieces, he barked his commands all the way from "prepare for action," through the firing of the battery with dummy ammunition but complete firing data, to "march order." Sergeant Edwards started the "Number One Piece" with Jack Boulter as gunner, but he had Joe take over after the first problem. When, after completing the final command of "march order," Joe jumped to his post on the right of the squad behind the trail, his heart was thumping and he was panting, though his part of the drill had involved little physical exercise. He was dazed, as he had been when he got through the commando course. Now he was a real artilleryman!

On Sunday night the platoon bulletin board bore a list of twenty men from the platoon who were to report to the orderly room at drill call Monday morning. From the First Section those listed were Achs, Ainsworth, Atterbury, Bamburger and Boom. On Monday the twenty men posted duly stood outside the orderly room when the siren blew for drill call. They agreed that they were in for some kind of detail, though from their knowledge of each other each doubted that it was as punishment for anything.

Presently Sergeant Smith boomed from inside, "Come in, boys." They crowded into the orderly room and he called the roll, finding none absent. The door of the captain's office was open and he was in there, reading his mail. "Go on in, boys," said the top. "The captain's expecting you." He smiled in a sweet way that might have meant affection or might have foreboded awful ill.

Awkwardly the twenty of them herded through the door, those in front holding back and those behind jamming against them so that everybody made a sorry mess of saluting. "At ease, men," said the captain. "Spread out so I can see you."

"All I wanted," he continued, "was to tell you that you twenty are first class privates from now on. You can draw your single chevrons from the supply room, and you'd better let some of Sergeant McQuade's boys sew them on for you. They know how to do it right."

He stood up, beamed into his big smile and extended his hand to the man nearest him. "Congratulations, Dolman," he said, as the embarrassed boy started to salute, then took his hand, murmured, "Thank you, sir," and did a perfect salute on leaving. The rest filed by to get their handshake and smile. When Joe came up the captain said, "Boom, I wish you'd wait. I have something else to tell you."

When the rest had gone the captain sat down and motioned Joe to a chair. "If you don't mind, Boom," he said, "there's something more I want you to get from the supply room besides your first-class chevron. They have arm-bands there with two chevrons on them, for acting corporals. You'll be gunner corporal of the first section from now on. You've done well, and you've got it coming.

"It's tough at the start, being made an N.C.O. over the boys you've been working with. The best plan is not to give any orders for a while, until they get used to your being around with the chevrons, unless, of course, you run into something really bad. Just leave it to Sergeant Butts and Sergeant Edwards. They won't give you anything special to do for a week or two, except to take charge of the squad when you're on the howitzers. That's the real job you're appointed for. From now on that old number one howitzer is your baby and you're responsible for it to me. If anybody finds any rust or dirt in it, you'll have to account for it. For the rest, just keep

running over all the duties of the gun squad, and try to get the way the cadres give orders for gun drill. You'll have to learn to make the boys snap the way Sergeant Edwards does. I think they'll do it for you because I think they like you. After you're broken in you may be called on to do a corporal's duties anywhere on the post."

Joe stood up, tried to say, "Thank you, sir," but his voice was a whisper deep in his throat.

XIV

FIFTH, SIXTH, SEVENTH AND EIGHTH WEEKS

IT WAS A month before Joe was called on to give any orders or perform any of the duties of a corporal except around his howitzer and on the occasion of one tactical march. On the howitzer he now acted always as gunner or relieved Sergeant Edwards as chief of section. With Alum, Arnberg, Bernstein, Boulter and Brilliante for one reason or another out of the battery, and Ainsworth, Atterbury and Barney doing regular duty as drivers, the first section had just the prescribed eight men left for its gun squad. From now on the battery was divided into cannoncers and drivers, and each group was specialized in its duties, though the cannoncers who were qualified drivers sometimes rotated in driving on the battery road marches, and once every two or three weeks the drivers rejoined their sections for an hour to keep their hands in on the howitzers.

The driving from now on was practical, artillery field work, no more of the polite sliding along in column on the civilian highways. Beginning with the fifth week the drivers spent half of most of the days off in the rough going of the bivouac area, moving cross country in column as directed by route markers, grinding up 30 degree slopes where the winches often had to be used, plowing through streams and swamps, "infiltrating" across fields or through the scrub to indicated positions, shooting all kinds of trouble in the field, pushing disabled trucks off the route, returning to camp for instruction by lectures, movies and critiques of the day's work. Many of the marches were battalion manoeuvres, with the other three batteries

of the battalion. One of these was a long march on the civilian highways, going through the most congested areas in every sizable town within twenty miles of the post, the battalion establishing its own traffic control, the route markers holding up civilian traffic at all corners till the battalion passed.

During the seventh week the whole battery went on the road marches, the howitzers being coupled to the prime movers and hauled into tactical positions over the same type of difficult terrain the trucks were accustomed to negotiate alone, the cannoneers often out of the trucks, straining on the howitzer wheels or out in front chopping down trees too big for the trucks to breast down. On Friday of that week the battery spent the day in the field, moving from position to position where the firing batteries went into action and fired dummy ammunition, having supper in the field, and returning to camp by a night march. In this stage the manoeuvres were mostly non-tactical, no observation posts or wire communication being established, no camouflage set up, and the night march being with lights.

During the fifth and sixth weeks everybody was trained in defense against air attack with the service rifle, firing by platoons on planes sent over the training area for the purpose, the platoon commander giving each squad a different "lead" to take in firing, a lead being the length of the target. As part of this instruction there were movies showing the identification points of friendly and enemy airplanes.

The training in defense against air attack was usually combined with hand grenade practice which merged into defense against tank attacks. For this purpose some of the battery's trucks were used as tanks, and their attacks, whether made in the training area or during field manoeuvres, were often accompanied by simulated gas attacks. On these exercises, instead of the practice grenades used for instruction, the men were given sacks of sand and flour that made a mark to show hits. As part of anti-tank training there was

instruction in the Molotoff cocktail (gas and sulphuric acid). Also the men were told of the existence of the mysterious launchers rocket, the most deadly anti-tank weapon in the world. Its composition and firing from a trough held at the shoulder were so secret that only a few selected N.C.O.'s were being trained in its use.

During this period the men were instructed in the reading of formal maps and sketch maps. When they had learned the conventional symbols in lectures and quizzes, they were supplied with sketch maps and required by means of them to find their way individually through an unfamiliar area to a certain point. Afterwards they were required to go through another unfamiliar area, sketching their own way as they went. There were also lectures on the reading of aerial photographs.

During these weeks the men were given their first instruction in concealment and camouflage, and in cover and field fortifications. They were taught to camouflage themselves, the trucks and the howitzers with leafy branches, so that sometimes the marches looked like moving forests. In the gun park the cannoneers learned to string the big camouflage nets over the howitzers, their cloth "garlands" simulating foliage. They were taught to dig fox holes that were little square pits intended less for protection than for concealment for machine guns, observation posts and command posts. They were instructed in considerable detail in digging slit trenches for their own protection, whether in bivouac or at the gun positions. A slit trench was simply a small trench long, deep and wide enough to get one man completely below the surface and leave him freedom of movement. The dirt or "spoil" from the trench was normally piled at one end to form a parapet for firing from that end. Slit trenches should be in small groups, each group arranged in angles so that at least one of the trenches commanded the approach to the position from each possible direction. The groups should be far enough apart so that a single shell burst could

not destroy more than one group. Typical groupings were those of a gun squad around its piece, always under the camouflage net. Such a grouping might be arranged as two cross trenches, each arm of each cross containing a man, their feet to the center. Or it might be arranged as a series of chevrons, or radially in a circle around the piece, or in any irregular fashion as best suited the terrain. A secondary consideration in laying out slit trenches was that if a position became permanent they might be deepened and extended into communication trenches between the four howitzers of the battery.

Early in this period there was instruction in field sanitation and sanitary appliances: the use of Lister bags and other methods for purifying water, the proper location and digging of latrines, the digging of garbage pits for temporary camps and the construction of incinerators for garbage disposal for permanent camps, the incinerator being a trench or cross trenches covered by a frame of green limbs with mud piled around it, a sort of oven in which the garbage would be cooked away.

Much of the above miscellaneous information was practically applied in a tactical foot march and bivouac at the end of the sixth week, at which time, incidentally, Joe got his first experience as an N.C.O. outside his own gun squad. At drill call the battery was formed with full packs and the men were given one day's field rations. The captain marched the battery out the familiar road toward the bivouac area, and as soon as they were clear of the camp halted it and divided it into eight patrols, two to a platoon. Each patrol was put in command of a trainee, with a cadre accompanying it as umpire. The patrol commander was supplied with a sketch map, a compass and written instructions to obtain certain information about the enemy and report to a rendezvous point, which was one of the bivouac camp sites. The patrol was to find its way to the rendezvous by the map, which required it to go through unfamiliar wilderness for a distance of four to six miles, the routes of the eight



Gun pointer—90 mm. anti-aircraft.

patrols varying widely. At a point indicated on its map each patrol would pass into enemy territory, after which all means of concealment would be used. Most of the patrols were required en route to report at an indicated message center for possible further instructions.

So far Joe was the only acting non-commissioned officer among the trainees of the first two sections of the first platoon. So he was put in command of the patrol that would be comprised of their twenty-one men. Joe had never issued an order nor drilled a squad nor exercised any authority whatsoever outside of the immediate vicinity of his howitzer. When Sergeant Lacey of the Second Section, who was to be his umpire, gave him his map, compass and written orders, he first spent a full minute studying the latter. With his compass he identified a pine tree on the horizon that was directly to the north, the direction perpendicular to the road they were on. Then he called the first and second sections to attention, gave them "right face" and "column left, march," then "route order" and "follow me." He led them across the road and straight into the woods. The rest of the battery was splitting into similar patrols and fanning out in eight directions.

When Joe was about a hundred yards back in the scrub he halted his patrol by holding up his hand. He split the patrol into two files, the first section on the left, the second on the right. He knew that First Class Private Fred Dart usually acted as gunner in the second section, so he appointed him second in command. He put Irving Bamburger in command of the left wing, consisting of the First Section, and Dolman, who usually acted as number one cannoneer for the Second Section, in command of that section which was the right wing. He read his instructions to the entire patrol:

"Proceed one mile north to road AB, which is the boundary of the enemy's territory. Cross road AB to ridge CD, from which you

will observe enemy encampment which you will sketch, recording its chief features, such as estimated numbers of the force there, number of artillery pieces, trucks, etc. Proceed in the direction of road AB to large dead tree where stream crosses at point E. Search for message at base of stub, and act upon anything found. Proceed to the rendezvous point F by the quickest route compatible with the safe performance of your mission. On reaching the road GH you will be again in friendly territory. On reaching rendezvous point F, report to officer in charge."

Having read the order, Joe told Bamburger and Dolman to lead their files fifty yards respectively to the left and right and to dress on him, watching him closely for signals. He told Dart to stay with him and to keep time and tell him when he thought they had gone about three-quarters of a mile. It should be in about eleven minutes, plus any delays.

When the right and left wings were at their proper intervals Joe set out northward at a four-mile pace. The scrub grew higher around them, and Joe lost the pine on the horizon he had been sighting on. He kept his compass in his hand, from time to time picking a new point as far to the north as they could see. After about five minutes he heard a plane coming low. He wondered for a moment if they should fire on it, but decided against that on account of the deep scrub. So he signalled the wings to scatter and take cover. The plane snarled over them and was gone. Joe had hardly resumed the march when Sergeant Lacey behind him said quietly, "Gas." "Gas," shouted Joe, and twenty-one masks went on. After another five minutes Sergeant Lacey said, "Test for gas, and give them 'all clear.'" Joe complied.

Presently Dart told Joe he thought they must have gone three-quarters of a mile. "Go out ahead about fifty yards, Fred," said Joe, "anything up to a hundred yards, so long as you can see me. I

don't want to bust onto that enemy road AB without knowing it. When you hit the road, signal me to halt. Watch your compass and keep going north."

"Very good, sir," said Dart in military fashion, and trotted out in front. He was still running, beginning to disappear in the scrub when he halted suddenly and held up his hand. Joe raised his hand for halt, then signalled the wings to assemble.

When they had come in he said, "Pretty soon we're going to cross the road AB into enemy territory. Go back to your positions, and we'll move up to the road slow-like. Move as close to the road as you can find cover. Everybody but the wing leader take cover, and he take as much cover as he can and still watch me. Before we cross I'll give you three minutes or so to camouflage yourselves with branches. Wing leaders see that everybody does a good job. Hold up your hands as soon as you're camouflaged. Then, when you see me and Fred light out across the road, you all do it too, at the double. On the other side we'll go on as we were."

"Just a minute, Boom," said Umpire Lacey. "What do you think is the best way of crossing an enemy road?"

"Fast," said Joe.

"Okay, but how else? The idea is to have the men exposed on the road as short a time as possible."

Joe thought a moment. "Cross in line instead of file?" he asked. Sergeant Lacey sauntered off, showing approval.

"As soon as everybody is camouflaged after you reach the road," said Joe to the wing leaders, "have your men come up in line, keeping cover. Then, when you see me cross, all cross together on the double, like I said. When you're in the cover on the other side, go back to file. Get it?"

Bamburger and Dolman did. They split back into their wings, and a little farther everybody halted, seeing the road. Joe and Fred broke off some oak and pine branches and stuck them in their,

tin hats and their belts. Joe stepped out into the open and looked up and down the road. Then he gave everybody the forward signal and ran across, the two wings only a moment behind him.

On the other side they had gone only a few rods when the ground began to rise, and Joe saw in front of them the low ridge CD. When they had got almost to the top, he halted his patrol, told Dart to take command of it and himself went on alone. The scrub thinned out here. He crawled the last few yards to the summit and peeked over.

Below he saw the "enemy encampment." It was a part of the post he did not know. There were stables and corrals for animals, with gun parks of small, mountain artillery with guns and caissons. Joe sketched the camp rapidly, marking down his guess of its dimensions. He counted six batteries of mountain artillery and, from counting the barracks, estimated that there were about a thousand men in the camp. All this he recorded on his sketch. He had just started back to the patrol when he saw a plane approaching. Leaning low, he joined the platoon at the double. The plane was losing altitude, coming straight for them. "Load," shouted Joe. The bolts clicked. "Target, that airplane," shouted Joe. "Right wing, take one lead, left wing, one-half lead." The plane growled down at them. "Fire," said Joe when it was within fifty yards. The triggers clicked, and the plane zoomed up again. The observer looked around and waved.

Joe led the platoon back to the better cover nearer the road AB and proceeded along it, figuring to keep the right wing about fifty yards in from the road. When they had started, he told Dart to go over to the right wing and tell it to dress on him instead of Joe and to keep fifty yards from him. Then Dart would go out near enough to the road to follow its course and would move along at a four-mile clip, keeping himself under cover. After that Joe dressed on the right wing and the left wing continued to dress on him.

After about a mile of tough going the ground began to fall, and

ahead and below them there were thick alders marking a stream. Joe signalled the left wing in on the double and led it over to the right wing, which he halted, and called Dart in. "Go on ahead along the road, Fred," he said, "and see if you find a dead stub where that stream crosses the road. We'll follow along, slow-like. When you find the stub double back and report."

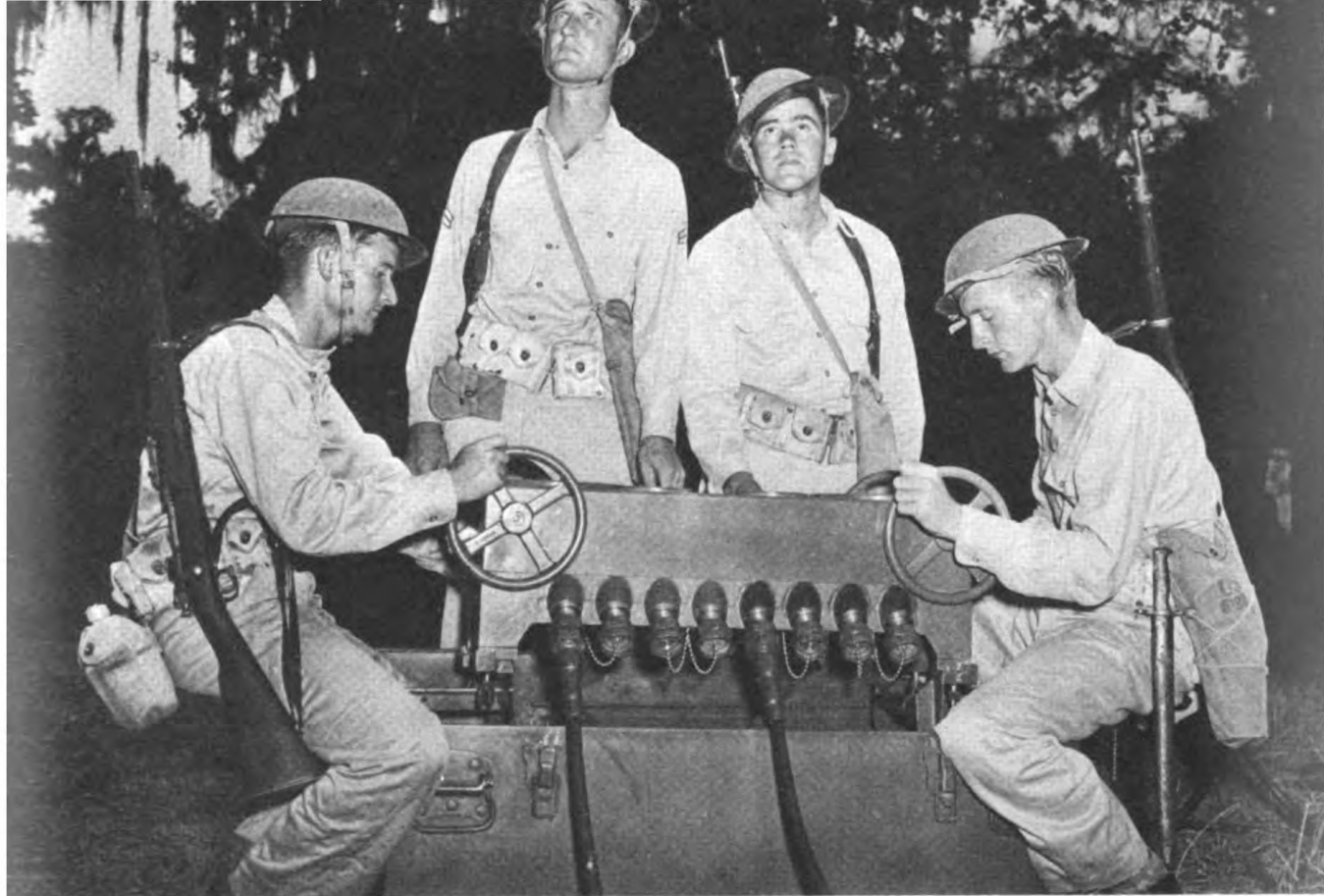
"Yes, sir," said Fred, and trotted off. He was still in sight when he stopped and held up his hand. Joe halted the platoon and Fred ran back. Joe left him in command and went forward to the old stub. Under a half exposed root he found a paper in some foreign language. He brought it back to the patrol. "Maybe this is German," he said. "Anybody read German?"

Harry Addelheim could. The message said, "Continue to patrol road. Watch out for American patrol of twenty men. Signed—Rommel."

"That's hot stuff," said Joe. "We've got to get clear of that road as fast as we can. Follow me." He led them fifty yards farther back in the scrub where he halted them and studied his map, showing it to Fred Dart. He saw that, according to the map, the stream in front of them swung around to the east and after a while crossed the road GH. The rendezvous point F was northeast from where they were, about a mile. The map didn't show what kind of country it was.

Joe hastily made a copy of his sketch of the enemy camp and gave it to Dart. "We'd better split up here," he said, "so one of us will get through. You take the right wing and follow up that stream to the road GH and proceed along it to the point F. I'll take the left wing and head straight cross country for point F. Remember, when you reach the road GH you're in friendly territory."

Joe now had only his own section to lead, and he split it into two wings about twenty-five yards to his right and left respectively. He reached the road GH and, seeing no sign of the rendezvous point,



A director of fire with no human error.

“Prepare for action”—90 mm. anti-aircraft.



sent his two wings to scout respectively to the right and left and to report back if they found the rendezvous point. Joe had a nervous ten minutes before Bamburger's group came back on the double. Joe took command of the group and sent Bamburger to call in the other scouting party and lead them to the rendezvous. Sergeant Lacey criticized Joe for not having given his scouting parties a limit of time in which they must return. When Irving Bamburger came back with the lost group, Fred Dart and his crowd were just behind them.

The rendezvous point was a bivouac area that was new to them, and it lacked both cook shack and latrines. Two other patrols were in ahead of Joe's and they already had two latrines dug. As soon as Joe reported to Captain Anderson, the two sections he had led were turned back to their proper cadres and Joe's high authority ended. Sergeant Edwards, who had been waiting for them, had the first section pitch shelter tents "tactically," which meant that they were not in lines but scattered through the scrub, no tent being nearer than fifteen yards to any other. This meant that the battery covered more than an acre. Even before they pitched tents the men were required to dig slit trenches alongside the spots where they were going to be.

Supper came out hot in the cook truck that was completely camouflaged and stopped under a clump of tall pine trees. The men were sent up by sections to infiltrate to the truck, get their chow and scatter immediately in the bush.

After supper the war was called off and the usual fire built. But before the usual jamboree Captain Anderson, assisted by the umpires, held a long critique of the different patrols. Joe was praised for splitting his patrol when he found the enemy was after him, also for firing on the plane. But he was criticized for the points Sergeant Lacey had mentioned, for not thinking to cross an enemy road in line, and for sending out a scouting detail without orders about its

return. But on the whole Joe fared as well as any of the other patrol leaders.

During the fifth, sixth and seventh weeks the battery learned the final wrinkles in serving the howitzers: the business of "opening" or "closing" the deflection on a certain piece, in order to widen or narrow the "sheaf" or fan of fire; the laying of the battery by compass, using the executive officer's aiming circle for initial aiming point and afterwards transferring to the aiming stakes.

The eighth week was the high point of the thirteen-week cycle. On Monday the entire battalion went out on a tactical problem, though actually the men of Battery D saw almost nothing of the other batteries. Within the battery each of the four platoons was assigned to one of the howitzers, the first platoon being assigned to the first piece, which was Joe's. The platoons were divided into two groups, the first two sections of all the platoons comprising what at the outset was called the "firing group" and all the third and fourth sections the "instruction group." In the battery column leaving camp the first section of each of the platoons rode in the prime mover drawing its howitzer, while the second sections were crowded into the two trucks comprising the ammunition section of the battery. The third and fourth sections of all the platoons, comprising the instruction group, occupied trucks at the rear of the column.

The problem was tactical throughout, the battery being halted after they left the main highway for the men to camouflage themselves and the carriages. Leaving Lieutenant Landon in command of the column, Captain Anderson in a peep and followed by a detail in a truck, buzzed ahead to establish his gun position ("G.P."), his observation post ("O.P.") which would also be his command post ("C.P."), and the location of the "rear echelon," consisting of the trucks and the encampment. After half an hour

the battery was directed by a route marker from the track it had been following into trackless country and moved down a little valley with a ridge on the left giving cover from 'enemy' ground observation.

At last the battery reached its position on the forward edge of a grove of tall pines, indicated by the two gun markers standing at the limits of the battery and holding their arms at right angles, one arm indicating the battery front, the other the direction of fire. The top sergeant in the captain's peep waited a little off to the right.

The prime movers plowed in through the scrub. The howitzers were unlimbered and prepared for action by the first sections of the four platoons, which proceeded thereafter to string the camouflage net, dig holes for the recoil under the breeches, and set out the aiming stakes in the rear. Meanwhile, the second sections came in, piled out of the trucks and dug slit trenches under the 44 x 36 camouflage nets for the two sections assigned to each howitzer. During these operations Sergeant Edwards was in general command of the first two sections, Joe immediately commanding the First Section which was to be the gun squad to "fire" first.

Meanwhile, as soon as the prime movers discharged the men and equipment and dropped the howitzers, they moved off to the right under the command of Top Sergeant Smith who led them about five hundred yards to the right rear and established the motor park under another grove of pines. The rest of the battery, being the "instruction group," consisting of the third and fourth sections of all platoons, proceeded still farther to the right rear and established the rest of the "rear echelon," the encampment with its latrines, garbage pits and shelter tent areas marked off for each platoon, the trucks discharging the shelter tents in each of these respective areas. After that the instruction group was split into details that established and marked, with previously painted signs, paths to the

cook truck, the latrines, the stream, the motor park, up to the firing battery, the observation post, and finally all the way to the battalion command post which was half a mile from the howitzers. Until these paths were established, using all the cover available, the men were not permitted to move about the area, and after they were established any man who went anywhere by any but the marked routes found himself on the first sergeant's list for punishment. The instruction group also put up signs at all important points, "O.P." and "C.P.," which in this case were the same, "Executive Officer," "Rear Echelon C.P.," etc.

Because of the previous thorough training in all the details involved, this first completely tactical move, simulating in every way the taking of position for real action and involving the continuous activity of two hundred men and fifteen trucks in a strange and thickly wooded area, went off without any hitch and without any of the shouting that would have marked a green outfit. It was complicated further by the fact that before and during the occupation of the position the battalion detail was stringing telephone wire in a maze centering in the battalion command post, one line each from the executive officer's station or G.P. and the battery O.P., with a separate line from each O.P. to its G.P. or executive officer just behind the firing battery. In the immediate vicinity of the howitzers these lines were strung through insulating eyes attached to trees, but elsewhere they went along the ground and might be broken anywhere by someone walking carelessly.

Joe was exhilarated by all this activity going on around him, while he concentrated on his own job which was now second nature to him, having the breech closed and the howitzer cover thrown loosely over the muzzle after the piece was prepared for action, in order to keep out the dust kicked up by the trucks, sending out a detail to cut poles for the camouflage nets and seeing to their location

and guying, sending back Bamburger, with Addelheim and Amkovitch, to set up the aiming posts, setting Peewee Achs to digging a hole under the breech for high angle fire.

When his section had finished its preliminary work, the Second Section still digging slit trenches, Joe had a chance to look around at the position. The grove of pines from beneath which the howitzer muzzles protruded was in a little pocket, and the hill giving them cover or defilade in front rose steeply, at twenty-five or thirty degrees. Joe noticed a good deal of activity around the executive officer's post over back of number two, and he saw that Lieutenant Landon was worried. Two telephone operators were trying to get a connection through and not succeeding. "G.P. Battery D, G.P. Battery D, Gun position Battery D," one of them kept saying into the apparently dead instrument. Presently a strange corporal arrived on the run and handed Lieutenant Landon a message. Immediately he called, "Cannoneers, posts." The four howitzer squads jumped to their posts and crouched. The extra section with each howitzer dove into its slit trenches.

"Aiming point, that aiming circle," shouted the executive officer, at the same time running back into the pines to the little instrument which he had set up fifty yards in the rear at a point where each piece could see it through the trees. A soldier with a notebook followed him, to act as recorder.

"Deflection," shouted the lieutenant from the aiming circle, "three-six-eight-zero. On number two close four-zero-zero. Do not load. Chiefs of section, report deflection."

"Four-zero-eight-zero," said Joe quietly to Sergeant Edwards. "Number one, four-zero-eight-zero," called the chief of section.

Meanwhile the lieutenant was sighting through his aiming circle on the panoramic sight of number one. With the aiming point so near, the general command to close four-zero-zero would not be

sufficient to bring the flank pieces into parallel fire. "Number one, left four-zero," shouted Lieutenant Landon. "Shift to aiming stakes and record deflection."

Number two reported its deflection. "Check," shouted the lieutenant. Number three was likewise correct. Number four had to go right eight-five. Meanwhile Joe had transferred his panoramic sight to the aiming stakes and Sergeant Edwards put down the base deflection.

"Report deflection on aiming stakes," shouted the lieutenant. The chiefs of section reported in succession.

"At ease," called the lieutenant and ran back to the telephone at the G.P. His orders had been to lay parallel fire 20 mils from north. The lines to the O.P. and the battalion C.P. were now open.

Joe had just got Achs back to digging when everybody heard the telephone operator reading back an order. "Battery, attenshun," commanded Lieutenant Landon. "Left five. On number three close five. Fuse, quick three. Charge four. Site three-zero-four. Right-left at one second interval. Four-two-hundred."

The first and second pieces sprang into action—"right-left" meant the right two pieces firing from the left. The dummy rounds slid into the breeches and the blocks closed. "Ready"—"Ready." The chiefs of section's hands raised. The executive officer's hand raised and lowered—"Fire."

"Number two, fire."

"Number one, fire." The two breeches opening and the Number Two cannoneers catching the ejected dummy rounds.

The corrections came down from battalion in fifteen seconds. "Right two," commanded Lieutenant Landon. "On number one close three. Four-four-hundred."

Again the two gun squads moved like a single machine and the hands went up. For the following round the whole battery was called

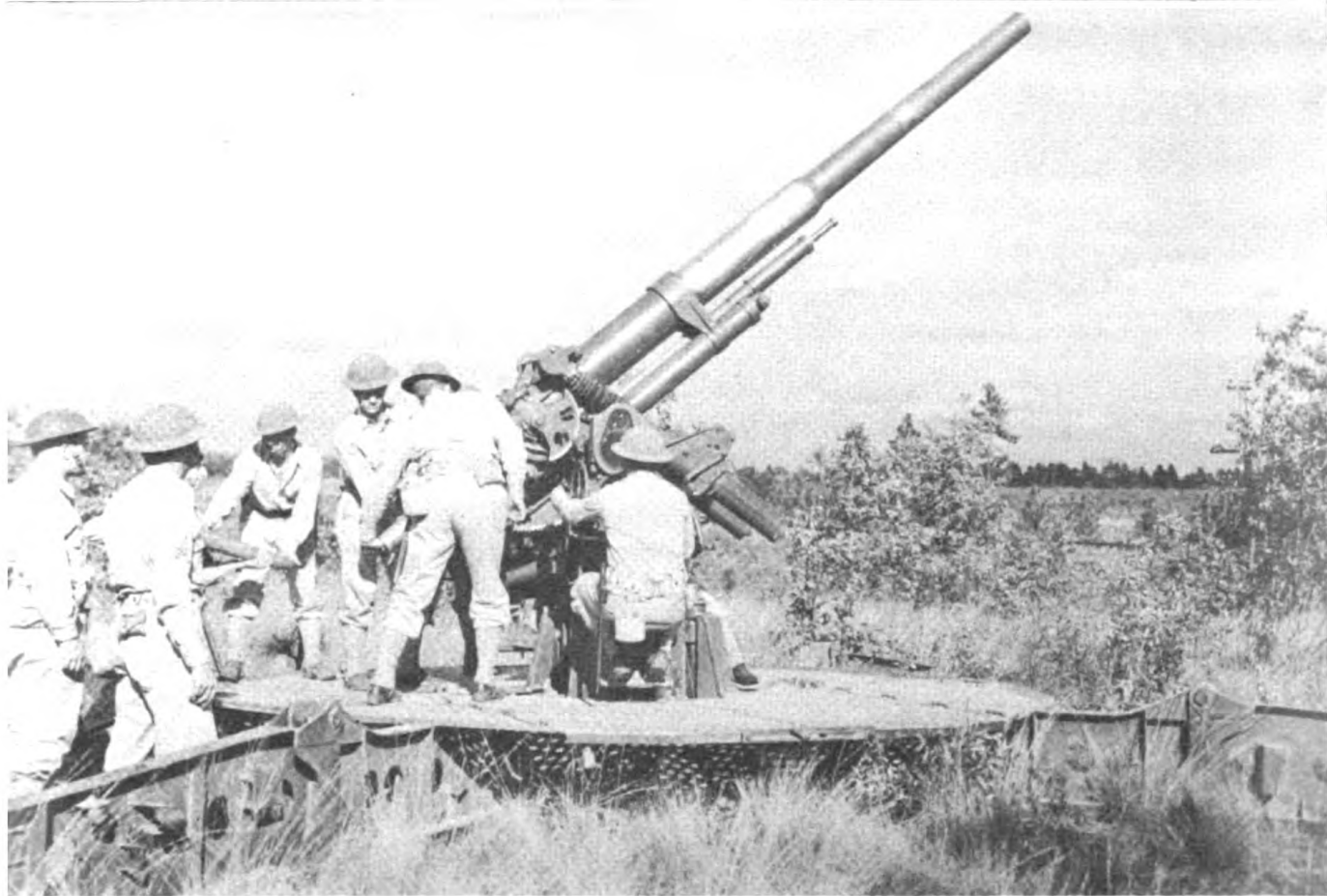
into action, the range "bracket" being halved at four—three—hundred. The problem ended with the battery firing three rounds volley fire. When each of the three section chiefs had reported, "Three rounds complete, sir," Lieutenant Landon gave the command, "Cease firing."

For the next problem the second sections took over the howitzers, and the first sections took the mess kits of both back to the cook truck, brought up chow, and carried back and cleaned the mess kits afterwards.

When they returned to the gun position the second sections were already firing a problem, and the first sections took to the slit trenches. When the problem was completed the third and fourth sections graduated from the instruction group to the firing group and were marched up from the rear and halted behind the howitzers. The first two sections were marched back to the rear echelon and became, for the rest of the day, the instruction group.

The new gun crews were immediately given "march order," the prime movers buzzed up from the gun park, the whole battery moved forward to a new position, and the whole operation was repeated. During the problems in the new position the instruction group was marched in column of twos to see the battery O.P., a fox hole on a hill off to the left and forward, and to hear Captain Anderson, acting as observer, telephone his hypothetical observations into the battalion C.P. Then the instruction group was marched to the latter, going behind Battery C, and saw the corrections being made and telephoned down to the batteries, the close-knit system by which the whole battalion was being fired as a unit.

Although the presence of the shelter rolls had implied that they were going to camp in the field that night, this had been ordered only to complete the tactical features of the move. The battery returned to the post for chow.



This big mobile gun is set up ready to fire at enemy planes.

Action—3-inch anti-aircraft.



Wednesday of that eighth week was the great day when the battery was to go to the range and fire its first service ammunition. The range was some thousands of acres of waste land like the bivouac area, but vastly larger than the bivouac area and on the opposite side of the main camp. It was under a special command, all its gun positions, observation posts, command posts and targets plotted and in permanent telephonic communication with Range Headquarters. No person was permitted on the range without military business requiring his presence there. The firing of each round and the location of the burst was reported direct to range headquarters independently of the conduct of fire of the batteries. It was possible for half a dozen batteries to be firing at once without endangering each other. There never had been a firing accident on the range.

The routine of firing on the range followed the pattern of that of Monday's tactical problem, but it was much simplified in the interest of safety and instruction and bore nothing like the close resemblance to actual battle conditions. The gun position used was a permanent one, was less than a hundred yards off one of the main roads through the range, and was in the open. The battalion command post was a long low concrete installation visible from the gun position a few hundred yards to the left rear. The targets used on this day were visible from the gun position and around it, although the howitzers used indirect fire and the gun crews were required to squat in proper fashion when the round was fired.

After the prime movers drew the howitzers into position, they circled and parked out of sight over a ridge to the left rear. But as soon as they were parked all of the instruction group except a battery guard left with the trucks was marched up to a slight elevation only about forty yards behind the howitzers, from which they watched the fire, with explanations by Lieutenant Spellman. The

cook truck took its position directly behind this group. The "circulation paths" between the instruction group and the howitzers and between the howitzers were permanent and wired off. All the telephone lines were permanent and underground. The battery had almost nothing to do except to man the guns and watch the firing. Firing on the range—at least from this position—bore about as much relation to real artillery action as target practice with the rifles did to infantry action.

The first two sections did not work together to-day as they had Monday, and Sergeant Edwards had only his own section to command. As soon as the trucks were back in their park, the usual eight of the gun squad were increased to eleven, when all the drivers were marched up through the wired circulation paths to join their sections—for everybody in the battery was to have a whack at serving the piece in service practice. Before Ainsworth, Atterbury and Barney joined it, the gun squad of the First Section had the piece prepared for action and had started digging two pairs of crossed slit trenches. The drivers added their slit trenches in front of the others. The battery had not camouflaged itself to-day, and the camouflage nets were not put up because they might interfere with observation by the instruction group from behind the howitzers.

After the half hour it took to complete the slit trenches the squad had nothing to do but lounge around the piece, which was tedious because they mustn't smoke. Sixteen rounds of live ammunition—the allotment of the piece for the day—neatly piled on a tarpaulin to the left rear of the left trail kept everybody aware that this was business. From time to time Joe turned to lean on the left wheel and look three thousand yards across a wooded valley at the targets they were going to fire at. There were four white rectangles against the green of woods behind, simulating an enemy battery. Off on the

flanks of these and higher up there were white heaps—probably stones.

After appraising the targets awhile, Joe turned around, glanced at the ammunition, then at the audience, the instruction group that was most of the battery gathered on the rise of ground behind him. Lieutenant Spellman was pointing out the targets to them. "Battery" came Lieutenant Landon's familiar voice from over back of number three, "Attenshun." The squad stiffened at its posts as one man. The three drivers took to the slit trenches but sat up, being permitted to watch.

"Distribute waste to cannoneers," came Lieutenant Landon's command. This was the duty of number seven cannoneer, and little Harry Addelheim proudly ran round to everybody. Everybody except Sergeant Edwards stuck the bits of waste in their ears. Joe felt like a sissy doing it, having been told by Jack Boulter that it was a rooky trick.

"Aiming point," came the voice of the executive officer which Joe could hear almost as plainly as if his ears hadn't been stuffed, "flagpole over center of building to left rear." The "building" was the battalion command post. Joe swallowed in excitement. Now at last he was taking firing data for the real thing. He swung round the rotating head of the sight in the approximate direction.

"Deflection four-zero-seven-five." The micrometer scale swam in front of Joe's eyes but he couldn't miss the five between seventy and eighty.

"On number four close one five." Joe swung the scale forty-five farther to four-one-two-zero, noting in his mind that they weren't going to use the aiming stakes—the flagpole made a perfect aiming point.

The commands were coming with deliberate slowness. Joe had to swing the howitzer with a little false motion to find the flagpole

in the sight, but he had it on and was levelling his bubble when the next command came down, this for Jeff Browne at number three. "Fuse, quick three." Joe rechecked his laying.

"Charge three." This meant high angle fire with a low charge, so everybody could watch the round in flight.

"Site two-nine-five." The enemy battery was noticeably below the gun position.

"Do not load." "Do not load"—"Do not load"—"Do not load"—"Do not load," cautioned all the chiefs of section.

"Three-one-hundred."

Irving Bamburger set his quadrant, levelled his bubble and squatted. He could not say "set" until the piece was loaded.

"Rear of your piece—*fall in*," came an unexpected command. There were hesitant looks, then, following Joe, everybody jumped to the old gun park drill. "Chiefs of section, check laying."

Sergeant Edwards deliberately checked Joe's laying, then Irving's, then inspected the round Adamic had left standing on the tarpaulin by Jeff. Since this was contact firing Jeff had no fuse setting to do. "Number one in order, sir," Sergeant Edwards reported, saluting the executive officer.

As if it were not insult enough to have the chief of section check the laying, Lieutenant Landon himself came over and went along from piece to piece. As he came back from looking at number one he said, "Don't mind, boys. It's regulations for the first round."

He went hastily down the battery, trotted back to his post and shouted, "Cannoneers, posts." When they were back at the howitzers he said quietly to his telephone operator, "D Battery ready to fire."

"D Battery ready to fire," repeated the operator.

There was a tense pause, that was not over ten seconds. Then the lieutenant called, "Battery right, at three second interval. Three-one-hundred."

Joe was going to be the first to fire! A strong composure settled on him. Without haste he rechecked his laying, and while his eye was on the sight he heard the clink of the round seating in the tube and the slap of the breech block as Irving shut it. Joe looked across at Irving and said, "Check your bubbles." Irving did, then attached the lanyard, ran it out loosely to the rear, laid the handle on the ground, crouched and said, "Set."

Joe heard the Gunner on number two shout "Ready" excitedly, but Joe first looked over his squad. As instructed for the first round with live ammunition, Achs was outside the trail alongside Jeff Browne, and Sergeant Edwards beside Bamburger, everybody squatting. Joe squatted beside Achs. "Ready," he said quietly.

Sergeant Edwards raised his hand.

Slowly Lieutenant Landon's hand went up, poised for seconds, then whipped down. "Fire," he shouted.

"Number one, fire," snapped Sergeant Edwards. Irving took up the slack in the lanyard, turned away, shut his eyes and pulled—

The world was all thunder—Joe shuddered as once when lightning struck a tree he was passing. But he kept his eyes open, saw his big howitzer jump three inches off the ground, saw the tube leap back, then forward again, jumped to his post, shouting, "Posts," and corrected the fraction of a mil the round had deranged the sighting. In quick succession he heard Bamburger snap open the breech, then number two's fire that jarred him almost as much as his own had done, then a far-off "boom" that was his own round exploding somewhere near the target.

In the next three-second interval Joe looked back, saw his empty smoking cartridge case lying between the trails, said severely, "Number Seven, put the brass behind the right trail."

Number three fired its round.

Joe glanced back at the trails and saw they had settled satis-

factorily deeper in the little trenches he had had dug for them. Sergeant Edwards was around in front of the shield, checking to see that counter-recoil was complete.

Number four fired its round.

Joe looked over the shield and saw number three's round burst a little under the target. "Rear of your piece, fall in," came an unexpected command. Annoyed by this rookie gun park business, Joe complied a little slowly.

"Chiefs of section, reform gun squads," called Lieutenant Landon.

Joe had been told this was coming, but he'd forgotten it. His lip curled scornfully. "All right, Corporal," Sergeant Edwards said to him, patting his shoulder.

Joe fell out gloomily, then quickly smiled, jumped over to Al Ainsworth's slit trench and said, "Okay, Ainsworth, front and center." The squad was to change posts in the usual way, except that the Gunner instead of going to Number Seven was to fall out, the first of the drivers going to Number Seven. Bamburger became Gunner, Achs Number One, Browne Number Two, and so on, everybody moving up one post. For the third round they would change again.

Joe kept up a show of authority by looking over the piece, checking the range bubble, looking in the breech and wiping it out with the wadding from one of his ears, going around to check the recoil scale that the sergeant had already checked, and looking into the faintly soiled muzzle. "Cannoneers, posts," came the command from the executive officer. Joe jumped over to the slit trench Al had occupied and lay down in it, getting himself completely out of view.

"Corporal Boom," came Sergeant Edwards' voice.

"Yes, sir," shouted Joe, coming to life and jumping up out of the trench.

"Keep an eye on the laying of the piece," said the sergeant, "and check it when the executive officer gives us the command. Don't get in the slit trench till the piece is ready."

"Yes, sir," said Joe. Now he felt okay again! He was still in charge. Afterwards he was glad that he had been able to squat there beside his howitzer and watch his squad fire it without his having to do anything.

The only change in deflection for the next round was, "On number one close three." That meant that Joe had been right on the target. The new range was "three-two-hundred." That meant the first salvo had been short.

When Irving Bamburger said, "Ready," Joe jumped down in the slit trench and squatted, looking out in front of the muzzle. Almost before the piece roared he saw the projectile soar up, contract to a black spot rising to its zenith and start down. As number two fired he lost the round but, shifting his eye to the target, saw it burst "over" in the woods, its white puff precisely behind the right-most of the "enemy" guns. At the same time, out of the corner of his eye he saw number two's round rising to its zenith. The sound of number one's round exploding boomed back from the distance. Number three fired and number two's round went off back of the enemy piece next to Joe's. Number four fired, number three's round exploded behind the third enemy piece, and the sound of number two's round drifted back to the position. Number four's round exploded behind the fourth enemy piece, the boom of number three's round came back. After three seconds the sound of number four's round drifted back. Then the world was silent. Joe squatted tense for a few moments. His long anticipation of firing was fulfilled. For twelve seconds he had been in the midst of orderly bedlam, the crash of the guns, the sight of the heavy projectiles sailing weightless into the sky, the puff of them bursting in the forest,

and the distant boom of the explosions drifting back to the position. He was more pleased than he had ever been in his life. Although he didn't know it, it was the hope of this that had made him write "Artillery" in Paragraph II of his Classification Card. His mind leapt into the future. This was only the beginning. Perhaps they'd be firing volleys before they got through! And by the end of the cycle they'd be whipping them off as fast as they did the dummy rounds in practice!

Joe's excitement continued during the next round, and was enhanced by a new feature. The range was reduced to "three-one-five-zero." When the white smoke of number one's round drifted off the target the enemy's right piece wasn't there! This visible destruction added to Joe's sense of power. Numbers two and three tore out part of their targets and number four demolished the left-most gun. During this round Joe had been able to catch glimpses of all four projectiles in flight. He felt as if he were conducting the fire. He knew what the next command ought to be.

He was right—"Number one, left seven. Number two, right seven. Battery one round. Three-one-five-zero."

The four rounds of the volley roared off in thunderous unison. The four shells were one enormous burst. Sedately the smoke began to drift off the target. The quadruple boom of the four rounds came back to the battery. The smoke cleared. The only sign that a target had been there was a slight change in the landscape. Half a dozen big trees had tumbled crisscross over the place where the enemy guns had been.

This was the end of the First Section's firing. Sergeant Lacey marched the Second Section down the wired circulation path from the instruction group, and Sergeant Edwards marched the First Section back to the grandstand. The men there were in four lines, one sitting, one kneeling and two standing. When the sections



Lowering the platform preliminary to placing this anti-aircraft gun on supports and getting it ready to fire.

that had fired were in their places, Lieutenant Spellman reviewed the problem for them. On the first round the range had been short, and only number one was on the target, the sheaf being too wide. The sheaf had been closed on number one and the range increased a hundred yards. The round had been over, with all four guns on the target for deflection. The short and over range made a "bracket," which was split for the next round, when numbers one and four were on the target, number two slightly over and number three slightly short. This proved that the range was right, any error being less than the probable error of the guns. Consequently, numbers one and four were closed so two howitzers were on each of the remaining two targets. The result was that the enemy was destroyed.

XV

END OF THE CYCLE

THE NINTH, TENTH, eleventh, twelfth and thirteenth weeks of the training cycle were more of the same thing, only more complicated, and strenuous to the point where the battery sometimes lived for days under virtual battle conditions. When Sergeant Edwards was present, Joe rotated posts with the rest. But frequently after the eighth week the sergeant would disappear and leave him to act as chief of section in "dry firing," or even in field manoeuvres. Though no acting sergeants were appointed in Battery D, Joe was actually getting experience as a sergeant. Outside of his own section he began to do the duties of a regular battery N.C.O. Two nights after the firing on the range the platoon went on guard and he acted as a corporal of the guard. Frequently thereafter he was put in charge of some detail—usually a disagreeable one like the manure detail or being left in charge of quarters on a Saturday afternoon or Sunday—and he handled strange boys from other platoons as easily as he did his friends.

By now Joe took his corporal's stripes and his authority for granted, and he gave orders easily and snappily, without self-consciousness. Because he still lived with the men in barracks, he never reported minor infractions there, but kept things in hand in his own way, so the cadres rarely had to appear from their sanctum. Even after Ainsworth and Dolman were also made acting corporals, they left everything to Joe, and if there were orders to be issued, he issued them. Whenever he cracked down on anybody with a quiet "Snap out of it" or "Cut the comedy," it was the support of the

old squadroom, not of Army Regulations, that got him obedience. In other words, Joe had got the big idea of the new Army, to lead the men instead of driving them.

During these five weeks the training of the cannoneers got its finishing touches. They were shown in detail every kind of ammunition and fuse for the 105, handled them all and learned their uses and intricate inner workings. They learned how to test and calibrate the sights and the range drum, and to measure the height of a hill in front of them and from the angle to calculate the minimum range possible for the various charges. With dummy ammunition they practiced firing with direct laying on moving targets, especially tanks, simulated by trucks that attacked them unexpectedly from awkward angles requiring the piece to be swung around. They were marched to other parts of the post and watched demonstration drills and some firing by the common types of field artillery other than the truck-drawn 105:

The 155 howitzer that was claimed to be the most accurate gun in the world, being served, like the 105, by an eight man squad and differing from the 105 chiefly in having a single wide trail instead of a split trail, and in being bigger and slower to handle, requiring a tray and the ramrod to load the heavy ammunition;

The 155 rifle, served by a squad of thirteen, its graceful tapering tube about twenty feet long, its enormous hinged breech block of shiny steel, its huge shells, its mount on a carriage with eight great tires;

The 240 howitzer that was the big baby of the Field Artillery, breaking down into four truck-drawn loads to move, the tube alone weighing over five tons, requiring about an hour and a half to go into position on its own platform anchored in the ground, and an equal time to execute march order—it was legendary of the 240 that when a piece was given a single mission of demolition it never took along but one round;

The 105 mounted on a half-track (wheels in front and caterpillar tread at the rear) and used with the armored forces for all purposes, including anti-aircraft and anti-tank;

The truck-mounted 75 tank buster;

The toy-like sawed off 75 howitzers, used by both the airborne troops and the mule-borne mountain artillery.

All the real exercises during this final period were with the battery as a whole, and were mostly hard marches, the taking and evacuation of positions under increasingly difficult conditions. During the ninth week they had their first night march, starting on the highway and ending up cross-country, using the blackout lights on the trucks and in the tubes of the howitzers, travelling at a five yard interval between vehicles and at five miles an hour, and changing drivers at the frequent halts. The maintenance and radio trucks accompanied these marches. A vehicle that was really bogged down was left with a maintenance squad to get itself out the best it could. During this same week they had two day marches involving pioneer work done mostly by the cannoneers, the laying of corduroy through swamps, the building of bridges over streams. All these exercises were followed by critiques, conducted by the captain or by Motor Officer Spellman.

In the tenth week all this was repeated under the worst possible conditions. They did a night march in the rain through strange swamps without any lights, took a position by no lights but the officers' and N.C.O.'s' flashlights, and fired a night problem with dummy ammunition, using the lights on the aiming stakes. All this involved the complete cleaning of trucks and howitzers after they returned to camp, much of it the same night. A First Aid truck always went along.

During the eleventh week there was a two-day exercise that amounted to a sort of final examination on all the training of the cycle. On Wednesday morning the battery set out on a four-hour

road march to a remote corner of the range, most of it through the unbroken bush, some of it through swamps and over streams and all of it under tactical conditions of camouflage and keeping cover. At noon the battery was parked, still limbered, and dinner was eaten. The same exercise was repeated in the afternoon. After supper one section from each platoon was assigned to each of the howitzers for all that followed, and Joe found himself on his old piece, with no prospect of being shifted from it till the problem was over.

The problem began with the night occupation of a firing position, complete with the stringing of nets, digging of slit trenches, establishment of the rear echelon, pitching of camp, the stringing of all communications, the establishment of proper circulation paths, the posting of a battery guard, all under the necessity of avoiding observation from ground or air the next day. Reveille in the morning was in the dark. By sunrise every man was at his post and the howitzers, concealed under a pine grove and the nets, laid for parallel fire. When an airplane began to circle over them at about 3,000 feet Joe suspected something was up. They were well defiladed behind a hill, with no chance of the cannoneers seeing the target if there was one. Although the firing battery didn't know it, the rest of the battery, except for necessary details, had been marched to a bare knoll half a mile on the flank. At eight o'clock a battalion truck came in and unloaded four rounds of live ammunition at each piece. Already Lieutenant Landon was busy at his telephone back of the line of howitzers.

Presently the lieutenant made the battery a little speech. "This time, men, we're not going to have any Sunday school tactics. We're not going to have any changing posts, and we're going to fire just as fast as they can shoot the corrections at us, which I reckon'll be plenty fast. The wind's from left to right, so we'll likely fire from the right. The target, I think, is a big concrete blockhouse, and they hope we'll leave some of it for the heavies to finish. I reckon we're

goin' to fool 'em. You boys are supposed to be the best gun squads in your platoons. Let's see you do your stuff."

Nobody in any of the squads moved or changed expression. There wasn't any question but what they could do their stuff.

"Battery D, gun position," they all heard the telephone operator in his fox hole beside Lieutenant Landon who squatted down to get the message.

"Battery, atten-shun," said the executive officer, just loud enough to be heard by numbers one and four on the flanks. "Aiming point as indicated. Deflection as indicated. On number two close two. Fuse, quick three. Charge five" (that meant firing at a real range). "Site, three-zero-three. Right-right, at one second interval. Six-two-hundred."

Slap—clank, the rounds went into the first two pieces. "Set"—"Ready"—the two chiefs of section's hands up. "Fire."

"Number one, fire."

"Number two, fire."

The howitzer jumped and bellowed, Joe checked his setting, and Achs was just wiping out the breech—

"On number two close one. Left-right. Six-one-seven-five." Joe made the one mil change. He would not fire this time. He knew what the data meant. They had lateral observation and didn't have to bracket. Number two had probably hit the target and he had been a shade over and just off to the right. "Fire."

"Boom—boom" went numbers three and four a second apart down at the left.

Ten seconds' pause, then, "Battery three rounds. Six-one-seven-five."

Joe heard it without a flutter. This was volley fire! Now they'd show them some shooting!

"Round one. Six-one-seven-five," called Achs and all the other Number Twos together, and the breech blocks clanked, closing.

"Set," from all the Number Ones. "Ready," from all the Gunners. From now on all the sounds and movements around the four pieces were precisely in unison. In spite of the determination of each squad to get through first, they couldn't beat each other. They were fully trained. Top speed was top speed, and they all attained it.

"Fire"—the first rounds roared off together.

Snap of the breech blocks. "Third and last round. Six-one-seven-five." Slap—clank. "Set"—"Ready"—"Fire"—B-b-b-boom.

Snap of the breech blocks. "Third and last round, Six-one-seven-five." Slap—clank. "Set"—"Ready"—"Fire"—Boooooommmmm, like a single big gun.

"Cease firing," from the executive. Joe checked his laying. Through the volley the hair hadn't moved from the aiming stake!

Joe smiled around at the squad. Over at the right there were two quick explosions. Joe saw something queer coming through the woods, a sort of fog. "Gas," shouted Sergeant Edwards.

Forty masks whipped on. "March—order," shouted Lieutenant Landon before he disappeared in his. The breeches and instrument boxes clanked, the muzzles depressed, the split trails swung together. In fifteen seconds the four chiefs of section turned to the executive and saluted. The prime movers came crunching down through the woods. The squads limbered without commands and the trucks pulled uphill out of the position. Behind them there were more explosions, precisely where they had been.

Half an hour later the whole battery met at a prescribed rendezvous and moved farther into the wilderness. At noon they parked tactically and ate dinner, and during the hour the camouflage nets they had abandoned in the "gassed" position were brought up and stowed in the prime movers. At one o'clock they moved forward again, took another position, fired dummy ammunition and again were chased out by gas. After supper they took another night position, tactically complete with camouflage and communications, and



A 90 mm. as an anti-tank weapon..

3-inch anti-aircraft gun in action.



camped for the night in the rear echelon. After breakfast the next morning they went home—miraculously finding a good road only half a mile from where they had camped!

After noon chow back in barracks the battery was marched to the Rec Hall, and Captain Anderson held a critique of the firing problem. Everybody was tired, but nobody went to sleep, even when the lights were out. The airplane they had seen was taking photographs and the captain had slides shown of the position before and during occupation. The howitzers, motor park and encampment, all the main features, had been perfectly concealed, causing no difference between the two pictures. But on the main path between the gun position and the rear echelon, in two hundred feet of it that was through the open scrub, some of the vegetation had been hacked down, and some of it had been broken and trampled. The result was a distinct white streak on the picture of the occupied position that had not been there before it was occupied. This, the captain said, was enough to bring down the fire of gas shells that had almost caught the firing battery. But the mission had been accomplished before that. The target had been demolished and would have to be rebuilt for the heavies that were going to fire at it from another position.

Throughout the course the daily physical training had been kept up, and in the twelfth week the battery was put over the close combat course for the second time. Joe was astonished to find that it was duck soup for him, and he, Achs, Bamburger and Browne ran it like cadres, keeping together all the way and going over the last hurdle in line—in spite of the fact that they beat by three minutes the best time the battery had made in the first rooky trial. Another feature of the twelfth week was the second firing of service rifles on the range, after which Joe got his marksman's medal.

The pace of the schedule slowed down in the thirteenth week. There were no major field exercises and much of the time was given

to reviewing routine fundamentals, such as the lubrication of the trucks and the care of the recoil mechanism of the howitzers. The tension of speed that had characterized the cycle gave way to a new and personal tension. Two hundred boys, starting as strangers drawn from every locality and every walk of life, had lived together in the utmost intimacy for thirteen weeks and had shared together the toughest grind any of them had ever been through. Next week they would be scattered to line outfits, God knew where. Most of them would never see each other again. They had been through a practice hell together, and now they were going out separately into real hell. The dead wood of the battery had all been transferred away long ago, and now the last animosities disappeared. The wise-cracking in the squad room at reveille and tattoo slowed down.

On Wednesday the fatal lists appeared on the bulletin board, each list being drawn from the entire battery. Each was in the form of an order: "The men listed below will form in the battery street at —— on Monday, February ——, 1943, for march (or transportation) to the railroad station." The orders went on to specify what equipment was to be turned in, what was to be worn or carried, and what was to be packed in barracks bags and foot lockers.

There were three lists of drivers, and Acting Corporal Ainsworth and First Class Privates Atterbury and Barney stayed together on one of them. Achs, Addelheim, Amkovitch and Atski were together on one list made up of cannoneers. Bamburger and Browne did not appear on any of the lists. The last list was a peculiarly mixed one: "The following men will report with full equipment to the Field Artillery Training Center School at 1600" (4:00 P. M.) "on Wednesday, February ——, 1943." Transportation would be provided. The list included Acting Corporal Boom, who was the senior acting N.C.O. in the battery. It also included Adamic and Dart, who were first class privates but had never been acting corporals. Both of them, however, as distinguished from Joe, were college graduates.

Captain Anderson had spoken to Joe about the Center School at the end of the eighth week, merely asking him if he would like to go to it. Its chief business was to qualify candidates for the Field Artillery Officers' Candidates School at Fort Sill. The captain told Joe that the first qualification for the course was a good I.Q., which Joe had. The second qualification was an educational background far greater than Joe's, but this was waived in exceptional cases. If he took the course he would find himself in competition with men with college degrees or the equivalent, and it would be tough going for him. If he got through it, he would probably get through Fort Sill and be commissioned. If he flunked the course he would be subject to assignment like any other private who had been through basic training. Men of high educational qualifications would be assigned to take the course, even though they had not shown ability in command. Such men, if they were commissioned, would probably end up as adjutants or staff officers. The captain told Joe that he was sure he would end up in line duty, whether commissioned or not. If Joe was willing, the captain would recommend him on the basis of the ability he had shown in handling men and in his grasp of the basic principles of artillery.

Joe thought the matter over for a few days. Already he was a different person from the eager boy who had felt a jump in his heart when he first started to drill on the howitzer. He had become a man in these weeks, a man who faced his problems squarely on their merits, no longer much influenced by a sense of his own importance and not greatly troubled by ambition. He concluded that since the old outfit was going to break up anyway, and since the one thing he wanted to avoid was being stuck here as a cadre, he'd better take a chance on the course. He told the captain so.

On Thursday after the posting of the orders that meant the end of old Battery D, an order appeared for certain men to report to the Orderly Room at 1300 (one o'clock). This list included all the act-

ing corporals in the battery and half a dozen others from each platoon. From the First Section, First Platoon, it included, besides Acting Corporals Ainsworth and Boom, Achs, Atterbury, Bam-burger and Browne.

When the forty-odd men—obviously the pick of the battery—were crowded into the orderly room, the captain stood up with an order in his hand. “I have a little news for you, boys,” he said. Solemnly and slowly he read the order from Training Center Headquarters.

“The following men are warranted sergeants in the Army of the United States:

Joseph Boom”

The captain went alphabetically through the four sergeants being made from the battery—Joe was the only one from the first platoon.

“The following men are warranted corporals in the Army of the United States:

Paul Achs
Alfred Ainsworth
George Atterbury
Irving Bam-burger
Jefferson Browne”

—and so on through a list of twenty new corporals from the battery.

“This promotion,” said the captain, “does not alter the orders you have previously received. Some of you” (this included Corporals Achs, Ainsworth and Atterbury) “are ordered to line duty, and this means that you will report to your new stations as corporals. Two of you” (this meant Sergeant Boom and a new sergeant from the Fourth Platoon) “are going to the Center School. Those of you who have not yet been assigned” (this included Corporals Irving Bam-burger and Jeff Browne) “will remain in the training center as cadres.”

Captain Anderson went round and shook hands with them all, with the air not of their commanding officer but of their friend. When he stood back behind his desk he said, "You can draw your chevrons from the supply room at once. These are the real thing you know, not just arm bands. You are now fully warranted non-commissioned officers."

Later that afternoon the captain gave the battery its final orientation lecture in the old Rec Hall. He ran over the causes of the war for the last time, and said he wanted to leave one last thought with them. The thing to remember was that we had a long tough detail ahead of us, and nobody could guess when it would end. The captain told the men that he knew that every one of them was ready now to carry out the detail, that all they needed was battle experience to be the best soldiers in the world. He said he thought he knew every man in the battery, and there wasn't one of them left who wasn't a loyal American and ready to risk his life to keep the world from slavery. He ended by announcing a party tomorrow night, "when we may have some more things to say to each other."

The final bivouac that Friday night was de luxe, the battery being carried out in the trucks, but without the howitzers and without bothering with camouflage.

XVI

SEACOAST AND SKYCOAST

IF JOE BOOM had been assigned to the Coast rather than the Field Artillery, his thirteen weeks of basic training would have differed chiefly in being more complicated, covering more subjects. Most of the headings on the training schedule would have been the same: Military courtesy and discipline; Organization of U. S. Army and Coast Artillery; Military sanitation and first aid; Equipment, clothing and tent pitching; Elementary map and aerial photograph reading; Interior guard duty; Concealment and camouflage; Protection against chemicals; Cover and field fortifications; Defense against air and mechanized attack; Protection of military information; Protection against carelessness; Dismounted drill; Inspections; Physical training and conditioning; Orientation; Marches and bivouacs. The training under all these fundamental headings in the Coast Artillery would have been virtually identical with that in the Field Artillery.

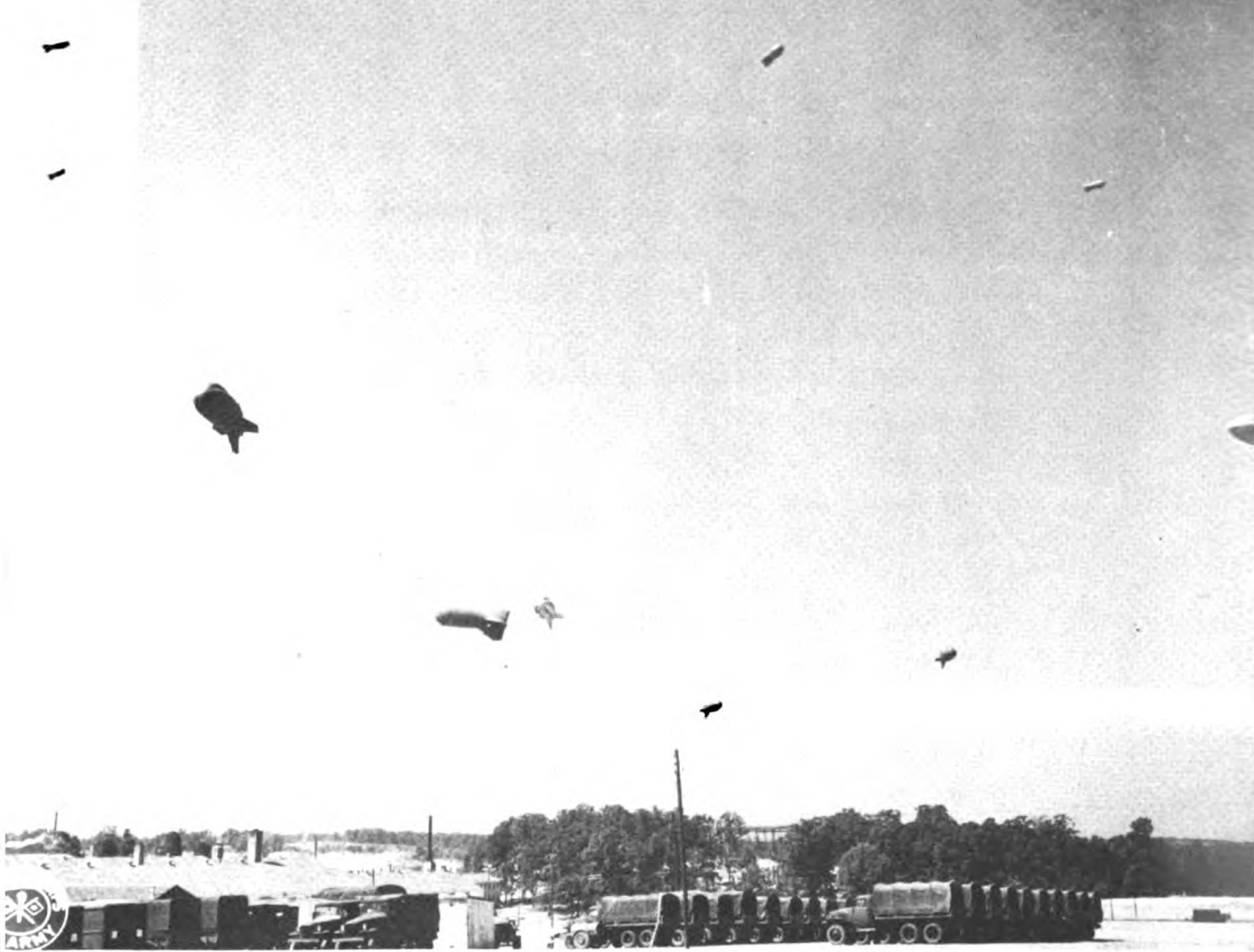
On the other hand, if Joe had been assigned to the "Coast" he would have had considerably less training in driving and motor maintenance, because much of the Coast Artillery fires from fixed emplacements. In addition to this, he would have had elementary instruction in things peculiar to the service of coast guns, and in the numerous collateral services of the Coast Artillery command. For the Coast Artillery is the most widely responsible branch of the service, performing duties overlapping those of the Navy, the Field Artillery, the Infantry, the Signal Corps and the Air Corps.

Because the coast artilleryman must be prepared to repel enemy landing parties, his infantry training is more complete than that of

the field artilleryman. In the "Coast" Joe would have been trained not only in dismounted drill, marching and bivouacing, patrolling and map reading, but in infantry combat tactics of attack and defense by section, platoon and larger units. His instruction in grenades would have been not merely part of the course on "defense against mechanized attack" (tanks), but a separate course in itself, fitting him to use grenades in trench and other infantry combat. His bayonet instruction would have been almost as thorough as that of an infantryman. He would have been trained in the use not only of the Springfield rifle or the 30-calibre carbine, but in both, with the automatic rifle to boot. His training in defense against landing parties would have included special instruction in tactics to be used against parachute and airborne troops. He would have been instructed not only in methods of identifying enemy airplanes, but also in identifying enemy naval craft of all types. He would have been better trained than he was in the Field Artillery in the various forms of elementary communication, especially for talking with naval units by semaphore, wig-wag, flash signals and the like.

Because the coast gunner's target is often a ship or airplane visible from the gun position, he is specially schooled in direct fire, called case one, or "jumping splashes." Much of his practice firing is with sub-calibre which means that the dummy shell contains an abbreviated 30-calibre rifle barrel in which an ordinary rifle cartridge is inserted and fired by the artillery piece's firing pin. The gun pointer trains on an actual target, usually towed on the water, and the accuracy of his fire can be observed on the target or by the splash. Accuracy in direct fire is emphasized from the beginning and even in the basic course second class, first class and expert gunners may be qualified. It is the aim of every organized coast artillery battery that every man in it should qualify as an expert gunner.

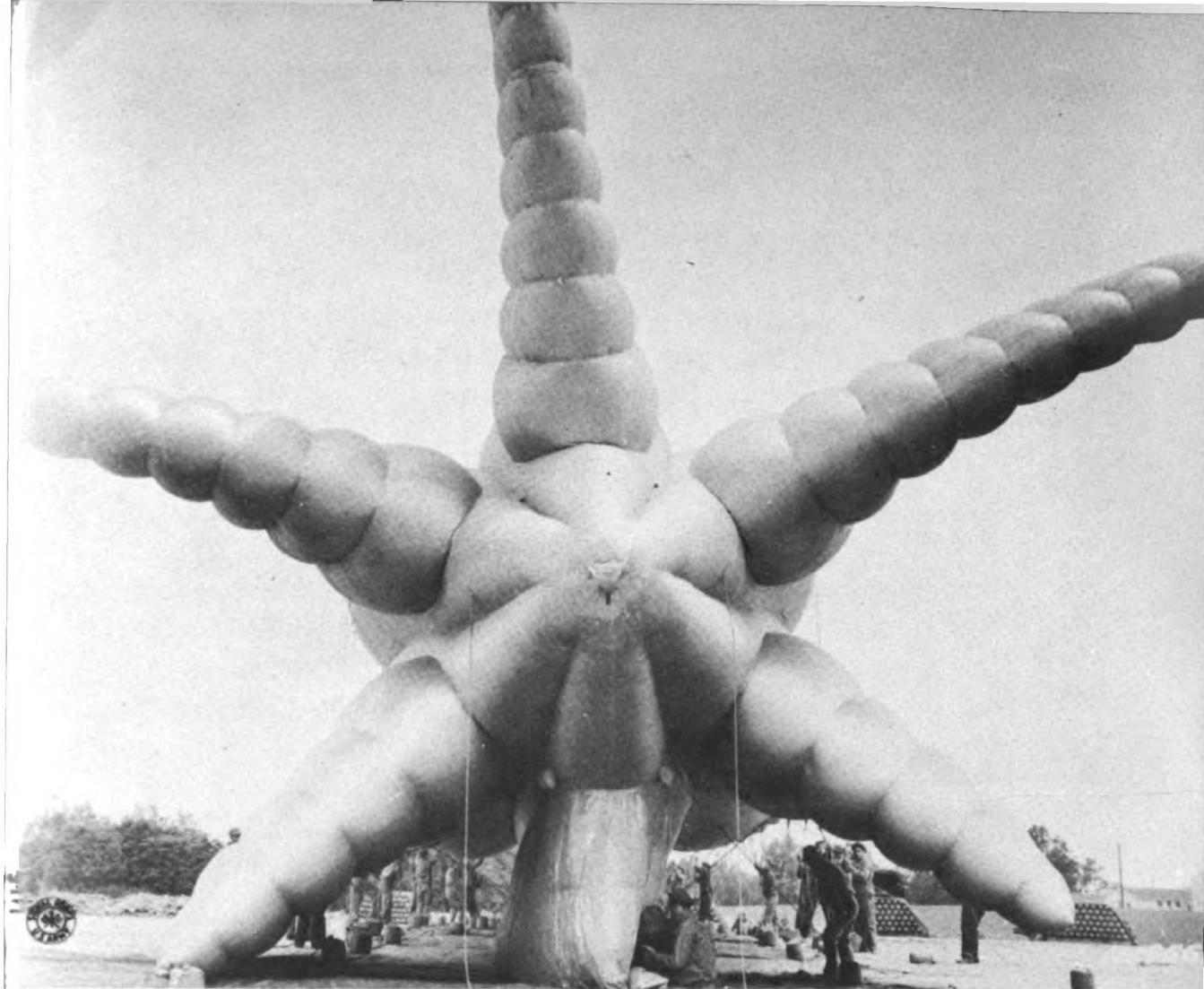
It is a requisite of coast artillery training that the trainee be qualified to take his place in any of the multitudinous aspects of harbor



Balloon barrage.

defense except that of laying and firing submarine mines. This is an enormous order, covering the use of guns—including field and anti-aircraft guns—of all calibres, and at least an elementary understanding of railway artillery, searchlights (“midnight cavalry”) and the balloon barrage. The emphasis, of course, is upon training with the guns, and during each of his three months in basic training the trainee serves with one of the three main types. As a typical coast artillery piece, he is usually trained for a month on the 6-inch rifle, familiarity with which fits him for transfer to the 155 mm. rifle (almost the same calibre) or the smaller 3-inch or the 75 mm., all of them either fixed guns or mobile field artillery pieces. As a typical big gun, suiting him for service with either the modern 16-inch rifle or howitzer or the modern 8-inch railroad artillery piece, he is trained for a month on the old 12-inch rifle. As a basis suiting him for service with either the 3-inch or the 90 mm. anti-aircraft gun, he serves for a third month with the 3-inch type. Sometimes the emphasis in a particular training battery is on the use of railway artillery, in which case motor and railway marches and transport are added to the schedule, and the gunner’s instruction includes the use of 50-calibre anti-aircraft machine guns. Sometimes a training battery is set up as a searchlight battery from the beginning, in which case searchlight drill and practice are added to the other elements of the schedule.

When an artilleryman has finished his basic course he is usually assigned to an organized outfit where he completes his advanced training, which consists in becoming a specialist in some particular function. For the field artilleryman the advance training is frequently this and nothing more, for the period of it is of unpredictable duration. His unit is a mobile one and is liable to be shifted from place to place as part of a combat division. It may at any moment be ordered to combat duty overseas. The coast artilleryman’s battery, on the other hand, is usually immobile. He stays at one station as part



Starfish of the skies, the monster of the balloon barrage.

of the defense of a particular harbor or "sector." His chance for action, when it comes, will be more crucial than that of the field artilleryman, because he is the last bulwark against invasion. But, correspondingly, his chance for real action comes less frequently. Consequently, it is his fate to continue indefinitely in the phase of training. In organized Coast Artillery outfits the basic thirteen weeks' training schedule is repeated over and over, in addition to the specialties of advance training and to the ordinary duties of standing "alert" and performing the other functions of a regular battery on duty. The result is that the coast artilleryman becomes, not only the most versatile soldier in the Army, qualified to function as any kind of artilleryman, as an infantryman, as a specialist in half a dozen directions, or even as a sailor; in addition to all this the coast artilleryman becomes the best trained soldier in the Army in all of his functions.

The coast artilleryman may be assigned to any of a dozen and more types of guns, from obsolete forms to the most modern.

He may find himself part of a battery of old-time 6-inch or 3-inch in an obsolete fort on an island or promontory commanding the entrance to some harbor.

If he is luckier he may become part of a battery of modern 6-inch, flanking or tucked away in a dune on the beach, all beautifully camouflaged, each gun protected by a shield of 6-inch armor completely enclosing the breech area like an enormous egg, but for an opening for the cannoneers. Tunnelled through the dune will be the passages connecting the guns, the magazine and powder rooms, and the plotting room in which the gun is completely laid by electricity, the gun crew having only to load and fire. Generally, the laying and firing of coast artillery guns is approaching the mechanical and electrical completeness of those of the Navy, all operations tending to become either automatic or operated from the plotting room upon observations that may be reported from miles away. Even the biggest



An anti-aircraft searchlight pierces the gloom.

and most modern guns may, of course, still be laid by hand, and they are manned with this in view, to cover the possibility of failure of communication.

The new artilleryman may find himself assigned to one of the old 12- or 14-inch rifles on disappearing carriages emplaced along the coast. These guns are obsolete and are being replaced, because of their narrow angle of traverse and the difficulty or impossibility of concealing them against airplane observation.

A little way back from the coast, buried in woods, he may become part of a battery of two 16-inch howitzers, about a quarter of a mile apart, with their magazine still farther away on the flank and to the rear, the whole connected by a double track, narrow gauge railroad system on which two little locomotives haul up the ammunition. These monsters—dwarfing the 240's (nine inch) which are the giants of the Field Artillery—are traversed and elevated by compressed air, the pressure being maintained by a motor which runs all the time in the cellar of the emplacement. The howitzers are modern in that they have a 360 degree traverse and can usually be camouflaged overhead. Also the high angle fire of howitzers is important because of the thinness of deck armor on battleships. Nevertheless, howitzers are going out of fashion with the appearance of the new 16-inch rifle, which likewise has a barbette carriage giving a 360 degree traverse, and with a possible angle of fire of 65 degrees can lob shells down on the decks of enemy ships as effectively as the howitzers can.

Altogether, the 16-inch coast artillery rifle is the queen of the world's artillery, its graceful, 40-foot-long tube tossing the 2,000 pound, \$2,000 projectile some 28 miles, as against about a 20 mile range for an equally large rifle firing from a battleship. Normally the two guns comprising a battery stick their noses out of concrete caverns buried at either end of a big sand dune, impervious to bombing or anything but a direct frontal hit, impervious to land or



Part of searchlight unit—searchlight, sound detector and power plant.

sea observation except immediately below them, impervious to aerial observation or photographs, impervious to discovery by any means except spies or the flash of their own firing. As in the modern 6-inch battery, a wide gallery through the dune connects the two guns with each other and with the big cool magazine, powder rooms and "contaminating chamber" with its apparatus for expelling gas from the entire underground labyrinth. The enormous shells ride to the guns in chain slings swung from overhead mono-tracks, and the powder charges are carried on little railway cars pushed by hand. Loading is completely automatic. The big babies are set by power or hand, according to data sent down to electrically revolving discs from the plotting room which is concealed in another dune to the rear or on a flank. In the plotting room all the meteorological factors (wind, temperature, density of atmosphere and the speed of the enemy ship) are automatically offset in the firing data. The time of flight of the shell at top ranges is about a minute. The only job of the officer directing the fire is to guess in which direction the enemy skipper will zig-zag his ship during the minute of flight. A big ship can't alter its course much in a minute. The 16-inch armor-piercing shells can nuzzle nicely through the thickest armor.

These are the fixed guns, distributed in scores around any important harbor, to any of which the new artilleryman is liable to be assigned. Each in its secret place, they are livened periodically by the "alerts" and by ordinary gun drill. But beyond this human activity there is a pulse which they all share, a kind of animated watchful vitality throughout the intricate system, which is always there, whether the men are at their posts or thirty seconds away in their barracks. This pulse is the bells, one of which rings at every gun at whatever is the proper interval for the gun to be unloaded, loaded and fired, varying from every four seconds up to every twenty seconds, a kind of continuous shadow-firing which carries



"Midnight cavalry"—a searchlight demonstration.

on by itself without intermission, a reminder that the Coast Artillery is momentarily alive and on the job.

These fixed guns are the primary armament of the defense of a harbor or sector. Scattered among them will be the 3-inch or the 90 mm. anti-aircraft guns, useful also against motor torpedo boats. Some of these are as mobile as field artillery. Some have platforms for emplacements which are slow to move. All are semi-automatic, both loading and unloading being mechanically performed for the extremely rapid fire of which they are capable. All the gunners have to do is fire the piece, set the fuses and track for range and deflection, keeping the pointer on their scales always opposite the pointer on the scales moved mechanically or electrically from the plotting station. When the automatic features of these guns are combined with the automatic laying of the new 6-inch, nothing will be left for the gunners but to fire the piece. And even that can be eliminated.

Available for service anywhere in an area is the railway artillery, which includes generally all the mobile Coast Artillery other than anti-aircraft, the 155 rifles that are on truck mounts drawn about by tractors, the old 14-inch and the new 8-inch railway guns, mounted on special flat cars with buttresses to swing out sideways to the ground to brace the car against turning over when the fire is to the flank, the boxcar machine shops which follow the pieces, prepared to service them. The mobile Coast Artillery is trained to camouflage its positions in the way the Field Artillery is, using natural vegetation and camouflage nets or chicken wire with garlands, concealing paths, kitchens, latrines, etc. Another duty of the mobile Coast Artillery is to make fake positions near enough its own to be identified with its fire, far enough so the fire they draw from the enemy will be ineffectual.

In connection with its anti-aircraft command, the Coast Artillery operates the great searchlights, a normal battery consisting of eight seacoast searchlights against ships and five anti-aircraft searchlights,

all mounted on mobile carriages and accompanied by mobile sound rangers and power plants. The searchlights operate in pairs, but with the units of each pair sufficiently separated so that a single hit will not get them both. The life of the searchlight operators ("midnight cavalrymen") is hard, for the searchlights must be parked by day far from their night stations, the "cavalrymen" working all night and sleeping by day in tiny isolated posts that look harmless. By night their long, star-probing beams crisscross the sky, standing still, swinging or creeping across the heavens, as the crews respond to the special commands that remotely suggest their Artillery affinities. The Coast Artillery's coverage of the night sky is completed by star shells and airplane flares at distances beyond the range of the searchlights.

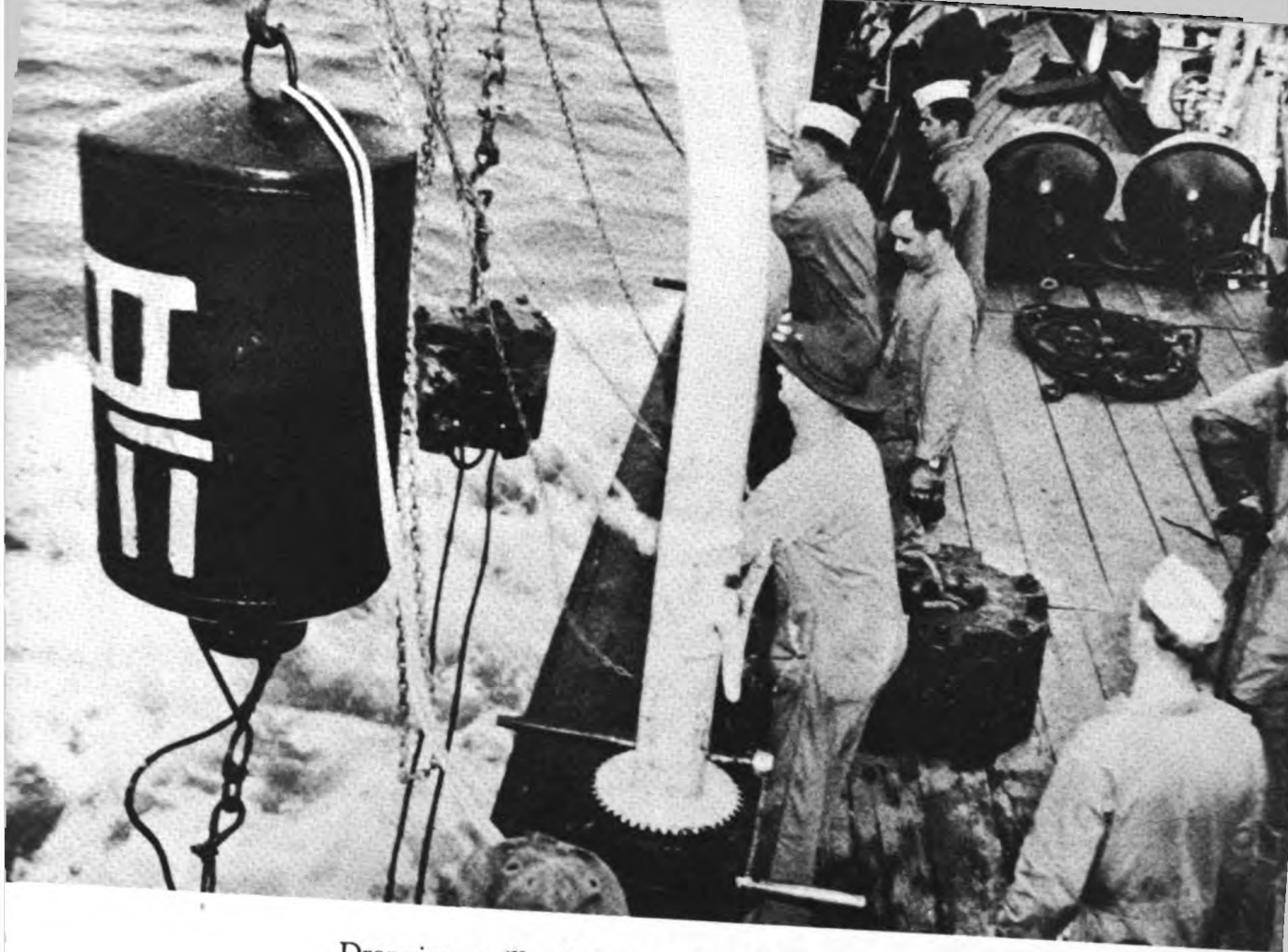
The Coast Artillery begins to overlap the Navy in its maintenance of the "controlled mine barrage" of a harbor, strings of mines maintained within searchlight range and set off from plotting rooms ashore like those of the Artillery when the target is over the mine. The Navy maintains the "contact mine barrage." For the purposes of minelaying, transport, etc., it is a fact that the Army maintains more small craft than the Navy does.

It is typical of the intricacy of the Coast Artillery that at many places they use Great Danes for guard duty.

Altogether, the complexity within unity of a Coast Artillery area is almost beyond civilian conception: The mechanical and electrical communication between the guns, the plotting room and the command post within the battery; the telephone communication, often across miles of ocean or land, between batteries and their group or regimental command post; the communication between all these and the range-finding units flanking a base line sometimes miles long; and, with the meteorological station whence all meteorological data are sent down to all the batteries every four hours, or continuously during action; the communication of all these units

with the mobile searchlights; and the mobile artillery; and the mine barrage control; and all naval stations; finally, the instantaneous readiness to communicate with all ships and all land troops.

It is a vast system of second to second watchfulness over the reaches of earth and sky and ocean, a system of deadly monotonous patience through the same routine, waiting for the threat that does not come. Night in, night out, month in, month out, the same boys dash from the same bunks to the same posts and the same practice alert on thirty seconds' warning, often half naked in order to be there with the command to load. Year in, year out, they continue to do it. And still they keep their spirit up. And they do this on the remote chance of an eventuality which everybody hopes will never occur. They do not have the excitement of action seriously expected, or the honor of action joined, risked and over. They are almost unhonored, almost unknown, unnoticed in the news of the day. Yet they are the boys on whom we ultimately depend. They are probably our best soldiers, probably the ones who, most of all, are entitled to honor.



Dropping a pill—the controlled mine barrage.

XVII

READY

WHEN JOE BOOM wrote "Artillery" in Paragraph 11 of his Classification Card, he identified himself with a particular service. But that was a secondary matter. The primary fact was that he was becoming part of the Army of the United States, the new American Army.

This new Army of the United States is incomparably superior to the old Army with its heavy-handed methods. Through the new practice of easy familiarity between officers and men, the effort to lead and never to drive, to persuade and not compel, the policy of making every man see the problem and work it out for himself in cooperation with his neighbors, it is an Army of free men, qualified to carry on and expand the tradition of freedom. When Joe Boom comes back to Ledgeville for good, he will be self-reliant and humanly wise as he never would have been without this experience. If he was typical of that younger generation whom many have thought to be wasteful and irresponsible, he will come home a fully awakened and responsible citizen, capable of seeing abuses and moving on his own volition to correct them.

In return for this benefit to himself and the country, Joe Boom will risk the payment of a price, a price slight for the country but heavy for himself. He will run the risk of death. Perhaps one boy out of two hundred in the Army will be killed. Perhaps five out of two hundred will be permanently maimed. Without fanfare and with remarkable coolness, the boys know the risk they are taking. They understand why they are being asked to take it, and they are eager to make the sacrifice when it is called for. In the war they will save the republic. Afterwards they will continue to save it.

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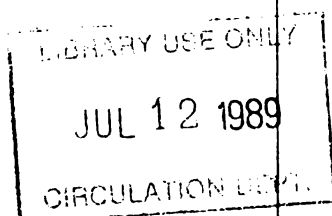
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